



DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 571

Docket No. NHTSA–2011-0185

RIN 2127-AK89

Federal Motor Vehicle Safety Standards; Matters Incorporated by Reference

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

ACTION: Final rule; technical amendments.

SUMMARY: This final rule updates and consolidates all of the references to the many standards and practices that are incorporated by reference into the Federal motor vehicle safety standards (FMVSSs). Although this part already contains a section regarding publications incorporated by reference, the list in that section is incomplete and has not been updated regularly. Instead, in many cases, materials have been incorporated piecemeal into individual FMVSSs. This final rule moves those scattered references into the centralized list so that it contains all of the references. Additionally, this final rule removes one obsolete FMVSS, No. 208a, as well as various obsolete provisions in other FMVSSs. Those provisions are applicable to vehicles and equipment manufactured before dates that have already passed and are no longer needed in the Code of Federal Regulations (CFR).

DATES: The effective date of this final rule is **[INSERT DATE 30 DAYS AFTER THE DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, except for the

amendments to 49 CFR 571.108, which are effective December 1, 2012. The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register as of **[INSERT DATE 30 DAYS AFTER THE DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. The incorporation by reference of certain publications listed in 49 CFR 571.108 is approved by the Director of the Federal Register as of December 1, 2012.

Petitions for reconsideration must be received by **[PLEASE INSERT DATE THAT IS 45 DAYS AFTER THE DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Petitions for reconsideration must be submitted to: Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: You may contact William H. Shakely of the NHTSA Office of Chief Counsel, NCC-110, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE, Washington, DC 20590. Telephone: (202) 366-2992; Facsimile: (202) 366-3820.

SUPPLEMENTARY INFORMATION:

I. Discussion

Pursuant to 5 U.S.C. 552(a) and 1 CFR Part 51, when NHTSA wishes to incorporate the standards and practices of other standardizing bodies into its FMVSSs, it may incorporate those materials by reference instead of reproducing them verbatim in the FMVSS. It must, however, obtain the approval of the Director of the Federal Register for each such incorporation. This final rule updates and consolidates all of the references to

the many standards and practices that are incorporated by reference into the FMVSSs in Part 571. Although this part already contains a section devoted to materials incorporated by reference, § 571.5, Matter Incorporated By Reference, the list is incomplete in that section and has not been updated regularly. Instead, in many cases, materials have been incorporated piecemeal into individual FMVSSs throughout Part 571.

This final rule moves those scattered references into the centralized list and moves the individual “incorporation by reference” paragraphs contained in some of the sections of Part 571 into § 571.5 so that all of the incorporations appear in one location in that part. Additionally, we are revising other paragraphs in the sections of Part 571 in order to include citations to § 571.5 when incorporated materials are referenced and to correct grammatical errors. This rule does not substantively alter or remove from Part 571 any of the existing incorporations by reference, except for those publications that are only referenced in the obsolete standard and provisions that, as discussed below, are being removed from the CFR. However, this rule does make minor textual changes to the citations to the publications incorporated by reference.

Specifically, this rule standardizes the format used to reference the various materials incorporated by reference and makes minor corrections to reflect the accurate titles of these materials. Additionally this rule incorporates the most recently reapproved versions of several ASTM International standards.¹ These versions are identical to the versions of the standards currently incorporated by reference. This rule also amends the

¹ These standards are ASTM E1337–90 and ASTM E1136–93. Various reapproval years are cited in the FMVSSs in which these two standards are referenced. Additionally, several FMVSSs inadvertently omit the version designation in the citations to ASTM E1136–93. This document incorporates by reference ASTM E1337–90 (Reapproved 2008), and ASTM E1136–93 (Reapproved 2003). When ASTM International reapproves a standard, it merely renews the standard as is and makes no revisions. These versions are identical to those currently referenced in the various sections of Part 571.

title of the American Association of Textile Chemists and Colorists (AATCC) “Geometric Gray Scale,” referenced in FMVSS Nos. 209 and 213, to its current title, “Gray Scale for Evaluating Change in Color.”² These amendments do not alter the substance of any of the sections of Part 571 nor do they alter the requirements of the FMVSSs contained therein.

In addition to consolidating the list of materials incorporated by reference, this rule amends § 571.5 to include updated language regarding how the public may obtain copies of the incorporated materials, including new procedures for retrieving materials from the National Archives and Records Administration and a new format indicating the sections where incorporated materials are referenced. Today’s document also updates the contact information for all sources of the incorporated materials, including phone numbers and websites, where possible, to assist members of the public in acquiring the incorporated materials.

As indicated in the Dates section above, the amendments to FMVSS No. 108 (§ 571.108) are not effective until December 1, 2012. The reason for this delay is that on December 4, 2007, NHTSA published a final rule amending FMVSS No. 108 (72 FR 68234). The purpose of the 2007 rule was to reorganize the standard and provide a more straightforward and logical presentation of the applicable regulatory requirements. In response to several petitions for reconsideration, the agency delayed the effective date of the 2007 rule until December 1, 2012 (73 FR 50730; 74 FR 58213). Accordingly, the technical amendments made to the amended version of FMVSS No. 108 by today’s final rule are likewise not effective until December 1, 2012. Additionally, the agency notes that

² Grades 1 through 5 on the scale, including No. 2, which is the only grade referenced in the FMVSSs, have not been changed since the scale was adopted in 1954. The only substantive change since that time is the addition of half-grades (e.g., 1-2, 2-3). However, this change does not alter the requirements of the FMVSSs that incorporate the scale.

the updated table of incorporated materials created by this document in § 571.5 only includes the publications referenced by the amended version of FMVSS No. 108, and does not include all of the publications cited in the version of the standard currently in effect. However, this final rule does not substantively alter or remove any of the references to the incorporated materials in the version of FMVSS No. 108 currently in effect.

This final rule removes the text of one obsolete FMVSS, No. 208a (571.208a). FMVSS No. 208a only applies to vehicles manufactured between January 27, 2004, and August 31, 2004. Given the limited period of applicability of this FMVSS and the fact that those dates are well in the past, this standard is no longer needed in the text of the CFR. This final rule also removes references to FMVSS No. 208a contained in other FMVSSs.

Likewise, this final rule removes outdated provisions contained in other FMVSSs. These provisions are applicable to vehicles and equipment manufactured before dates that have already passed. Accordingly, like FMVSS No. 208a, these provisions are no longer needed in the text of the CFR.

Finally, this final rule makes two technical amendments to Part 571 to correct inaccurate references. First, the authority citation of Part 571 incorrectly cites 49 U.S.C. 30177. This section does not exist. The correct citation is 49 U.S.C. 30117. Second, paragraph S7.2.1 of FMVSS No. 202a incorrectly references paragraph S6.1 of that standard. Paragraph S7.2.1 describes the calculation of annual vehicle production for the purposes of the September 1, 2010, to September 1, 2011, phase-in of the rear seat requirements of the new standard. However, paragraph S7.2.1 references S6.1, which describes the percentage of vehicles manufactured between September 1, 2009, and September 1, 2010, that must comply with the new standard as opposed to the old standard.

The correct reference is paragraph S7.1, which describes the percentage of vehicles manufactured between September 1, 2010, and September 1, 2011, that must comply with the rear seat requirements of the new standard.

II. Rulemaking Analyses and Notices

Section 553 of the Administrative Procedure Act (5 U.S.C. 553) provides that when an agency, for good cause, finds that notice and public procedure are impracticable, unnecessary, or contrary to the public interest, the agency may issue a final rule without providing notice and an opportunity for public comment (5 U.S.C. 553(b)(B)). NHTSA has determined that there is good cause for making these technical amendments final without notice and an opportunity for public comment. These amendments consolidate the references to materials currently incorporated by reference in the individual sections of Part 571 and correct the syntax of the references to these publications within each section. The amendments also correct grammatical errors and incorrect references in Part 571. Finally, the amendments delete the text of one obsolete FMVSS as well as various obsolete provisions in other sections of Part 571. The amendments do not alter the substance of the amended sections nor do they alter the requirements of the FMVSSs contained therein. Accordingly, notice and public comment are unnecessary.

We are making the amendments effective 30 days after publication of this document, with the exception of the amendments to FMVSS No. 108, which are effective December 1, 2012. Given that the amendments do not make any substantive changes, we find good cause for making the amendments effective within this timeframe.

The agency has discussed the relevant requirements of Executive Order 12866, Executive Order 13563, DOT Regulatory Policies and Procedures, the National

Environmental Policy Act, the Regulatory Flexibility Act, Executive Order 13132 (Federalism), Executive Order 12988 (Civil Justice Reform), the Unfunded Mandates Reform Act, the Paperwork Reduction Act, Executive Order 13045 (Protection of Children from Environmental Health and Safety Risks), the National Technology Transfer and Advancement Act, and Executive Order 13211 (Energy Effects), as applicable, in the underlying substantive rules establishing and amending the various sections of Part 571. Those discussions are not affected by these amendments.

Regulatory Identifier Number (RIN)

The Department of Transportation assigns a regulation identifier number (RIN) to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. You may use the RIN contained in the heading at the beginning of this document to find this action in the Unified Agenda.

Privacy Act

Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78) or you may visit

<http://www.regulations.gov>.

III. Regulatory Text

List of Subjects in 49 CFR Parts 571

Imports, Incorporation by reference, Motor vehicle safety, Reporting and recordkeeping requirements, Tires.

In consideration of the foregoing, NHTSA amends 49 CFR Part 571 as follows:

PART 571—FEDERAL MOTOR VEHICLE SAFETY STANDARDS

1. The authority citation for part 571 of Title 49 is amended by revising the citation to read as follows:

Authority: 49 U.S.C. 322, 30111, 30115, 30117, and 30166; delegation of authority at 49 CFR 1.50.

2. Revise § 571.5 to read as follows:

§ 571.5 Matter incorporated by reference

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the National Highway Traffic Safety Administration (NHTSA) must publish notice of change in the Federal Register and the material must be available to the public. All approved material is available for inspection at NHTSA, 1200 New Jersey Avenue SE, Washington, DC 20590, and at the National Archives and Records Administration (NARA). For information on the availability of this material at NHTSA, or if you experience difficulty obtaining the standards referenced below, contact NHTSA Office of Technical Information Services, phone number (202) 366-2588. For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

(b) American Association of Textile Chemists and Colorists (AATCC), 1 Davis Dr., P.O. Box 12215, Research Triangle Park, NC 27709. Website: <http://www.aatcc.org>.

(1) AATCC Test Method 30–1981, “Fungicides, Evaluation on Textiles: Mildew and Rot Resistance of Textiles,” into § 571.209.

(2) AATCC Gray Scale for Evaluating Change in Color into §§ 571.209; 571.213.

(c) American National Standards Institute (ANSI), 1899 L St., NW, 11th floor, Washington, DC 20036. Telephone: (202) 293-8020; Fax: (202) 293-9287; Website: <http://www.ansi.org>. Copies of ANSI/RESNA Standard WC/Vol.1–1998 Section 13 may also be obtained from Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), 1700 North Moore St., Suite 1540, Arlington, VA 22209–1903. Telephone: (703) 524-6686; Website <http://www.resna.org>.

(1) ANSI Z26.1–1977, “Safety Code for Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highways,” approved January 26, 1977, into § 571.205(a).

(2) ANSI Z26.1a–1980, “Safety Code for Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highways,” approved July 3, 1980, into § 571.205(a).

(3) ANSI/SAE Z26.1–1996, “American National Standard for Safety Glazing Materials for Glazing Motor Vehicles and Motor Vehicle Equipment Operating on Land Highways-Safety Standard,” approved August 11, 1997, into § 571.205.

(4) ANSI/RESNA Standard WC/Vol. 1–1998, Section 13, “Wheelchairs: Determination of Coefficient of Friction of Test Surfaces,” into § 571.403.

(d) ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959. Telephone: (610) 832-9500; Fax (610) 832-9555; Website: <http://www.astm.org>.

(1) 1985 Annual Book of ASTM Standards, Vol. 05.04, “Test Methods for Rating Motor, Diesel, Aviation Fuels, A2. Reference Materials and Blending Accessories, (“ASTM Motor Fuels section”),” A2.3.2, A2.3.3, and A2.7, into §§ 571.108; 571.205(a).

(2) ASTM B117–64, “Standard Method of Salt Spray (Fog) Testing,” revised 1964, into § 571.125.

(3) ASTM B117–73 (Reapproved 1979), “Standard Method of Salt Spray (Fog) Testing,” approved March 29, 1973, into §§ 571.108; 571.209.

(4) ASTM B117–97, “Standard Practice for Operating Salt Spray (Fog) Apparatus,” approved April 10, 1997, into § 571.403.

(5) ASTM B117–03, “Standard Practice for Operating Salt Spray (Fog) Apparatus,” approved October 1, 2003, into § 571.106.

(6) ASTM B456–79, “Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium,” approved January 26, 1979, into § 571.209.

(7) ASTM B456–95, “Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium,” approved October 10, 1995, into § 571.403.

(8) ASTM C150–56, “Standard Specification for Portland Cement,” approved 1956, into § 571.108.

(9) ASTM C150–77, “Standard Specification for Portland Cement,” approved February 26, 1977, into § 571.108.

(10) ASTM D362–84, “Standard Specification for Industrial Grade Toluene,” approved March 30, 1984, into §§ 571.108; 571.205(a).

(11) ASTM D445–65, “Standard Method of Test for Viscosity of Transparent and Opaque Liquids (Kinematic and Dynamic Viscosities),” approved August 31, 1965, into § 571.116.

(12) ASTM D471–98, “Standard Test Method for Rubber Property—Effect of Liquids,” approved November 10, 1998, into § 571.106.

(13) ASTM D484–71, “Standard Specification for Hydrocarbon Drycleaning Solvents,” effective September 15, 1971, into § 571.301.

(14) ASTM D756–78, “Standard Practice for Determination of Weight and Shape Changes of Plastics under Accelerated Service Conditions,” approved July 28, 1978, into § 571.209.

(15) ASTM D1003–92, “Standard Test Method for Haze and Luminous Transmittance of Transparent Plastics,” approved October 15, 1992, into § 571.108.

(16) ASTM D1121–67, “Standard Method of Test for Reserve Alkalinity of Engine Antifreezes and Antirusts,” accepted June 12, 1967, into § 571.116.

(17) ASTM D1123–59, “Standard Method of Test for Water in Concentrated Engine Antifreezes by the Iodine Reagent Method,” revised 1959, into § 571.116.

(18) ASTM D1193–70, “Standard Specification for Reagent Water,” effective October 2, 1970, into § 571.116.

(19) ASTM D1415–68, “Standard Method of Test for International Hardness of Vulcanized Natural and Synthetic Rubbers,” accepted February 14, 1968, into § 571.116.

(20) ASTM D2515–66, “Standard Specification for Kinematic Glass Viscometers,” adopted 1966, into § 571.116.

(21) ASTM D4329–99, “Standard Practice for Fluorescent UV Exposure of Plastics,” approved January 10, 1999, into § 571.106.

(22) ASTM D4956–90, “Standard Specification for Retroreflective Sheeting for Traffic Control,” approved October 26, 1990, into § 571.108.

(23) ASTM E1–68, “Standard Specifications for ASTM Thermometers” (including tentative revisions), accepted September 13, 1968, into § 571.116.

(24) ASTM E4–79, “Standard Methods of Load Verification of Testing Machines,” approved June 11, 1979, into § 571.209.

(25) ASTM E4–03, “Standard Practices for Force Verification of Testing Machines,” approved August 10, 2003, into § 571.106.

(26) ASTM E8–89, “Standard Test Methods of Tension Testing of Metallic Materials,” approved May 15, 1989, into § 571.221.

(27) ASTM E77–66, “Standard Method for Inspection, Test, and Standardization of Etched-Stem Liquid-in-Glass Thermometers,” revised 1966, into § 571.116.

(28) ASTM E274–65T, “Tentative Method of Test for Skid Resistance of Pavements Using a Two-Wheel Trailer,” issued 1965, into § 571.208.

(29) ASTM E274–70, “Standard Method of Test for Skid Resistance of Paved Surfaces Using a Full-Scale Tire,” effective October 2, 1970, into §§ 571.105; 571.122.

(30) ASTM E298–68, “Standard Methods for Assay of Organic Peroxides,” effective September 13, 1968, into § 571.116.

(31) ASTM E308–66, “Standard Practice for Spectrophotometry and Description of Color in CIE 1931 System,” reapproved 1981, into § 571.108.

(32) ASTM E1136–93 (Reapproved 2003), “Standard Specification for a Radial Standard Reference Test Tire,” approved March 15, 1993, into §§ 571.105; 571.121; 571.126; 571.135; 571.139; 571.500.

(33) ASTM E1337–90 (Reapproved 2008), “Standard Test Method for Determining Longitudinal Peak Braking Coefficient of Paved Surfaces Using a Standard Reference Test Tire,” approved June 1, 2008, into §§ 571.105; 571.121; 571.126; 571.135; 571.500.

(34) ASTM F1805–00, “Standard Test Method for Single Wheel Driving Traction in a Straight Line on Snow- and Ice-Covered Surfaces,” approved November 10, 2000, into § 571.139.

(35) ASTM G23–81, “Standard Practice for Generating Light-Exposure Apparatus (Carbon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials,” approved March 26, 1981, into § 571.209.

(36) ASTM G151–97, “Standard Practice for Exposing Nonmetallic Materials in Accelerated Test Devices that Use Laboratory Light Sources,” approved July 10, 1997, into § 571.106.

(37) ASTM G154–00, “Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials,” approved February 10, 2000, into § 571.106.

(e) Department of Defense, DODSSP Standardization Document Order Desk, 700 Robbins Ave., Philadelphia, PA 19111-5098. Website: <http://dodssp.daps.dla.mil/>.

(1) MIL-S-13192, “Military Specification, Shoes, Men's, Dress, Oxford,” October 30, 1976, into § 571.214.

(2) MIL-S-13192P, “Military Specification, Shoes, Men's, Dress, Oxford,” 1988, including Amendment 1, October 14, 1994, into § 571.208.

(3) MIL-S-21711E, “Military Specification, Shoes, Women's,” 3 December 1982, including Amendment 2, October 14, 1994, into §§ 571.208; 571.214.

(f) General Services Administration (GSA), Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Telephone: (202) 512-1800; Website: <http://www.gsa.gov>.

(1) GSA Federal Specification L–S–300, “Sheeting and Tape, Reflective; Nonexposed Lens, Adhesive Backing,” September 7, 1965, into § 571.108.

(2) [*Reserved*]

(g) Illuminating Engineering Society of North America (IES), 120 Wall St., 7th Floor, New York, NY 10005-4001. Telephone: (212) 248-5000; Website: <http://www.iesna.org>.

(1) IES LM 45, “IES Approved Method for Electrical and Photometric Measurements of General Service Incandescent Filament Lamps,” approved April 1980, into § 571.108.

(2) [*Reserved*]

(h) International Commission on Illumination (CIE), CIE Central Bureau, Kegelgasse 27, A–1030 Vienna, Austria. <http://www.cie.co.at>.

(1) CIE 1931 Chromaticity Diagram, developed 1931, into § 571.108.

(2) [*Reserved*]

(i) National Center for Health Statistics, Centers for Disease Control (CDC),
National Division for Health Statistics, Division of Data Services, Hyattsville, MD 20782.
Telephone: 1 (800) 232-4636. Website: <http://www.cdc.gov/nchs>.

(1) DHEW Publication No. (HRA) 76-1074, “Weight, Height, and Selected Body
Dimensions of Adults: United States - 1960-1962,” first published as Public Health Service
Publication No. 1000 Series 11-No. 8, June 1965, into § 571.3.

(2) [*Reserved*]

(j) National Highway Traffic Safety Administration (NHTSA), 1200 New Jersey
Ave. SE, Washington, DC 20590. Website: <http://www.nhtsa.gov>.

(1) Drawing Package, “NHTSA Standard Seat Assembly; FMVSS No. 213, No.
NHTSA–213–2003,” (consisting of drawings and a bill of materials), June 3, 2003, into
§ 571.213.

(2) Drawing Package, SAS-100-1000, Standard Seat Belt Assembly with
Addendum A, Seat Base Weldment (consisting of drawings and a bill of materials),
October 23, 1998, into § 571.213.

(3) “Parts List; Ejection Mitigation Headform Drawing Package,” December 2010,
into § 571.226.

(4) “Parts List and Drawings; Ejection Mitigation Headform Drawing Package”
December 2010, into § 571.226.

(k) SAE International, 400 Commonwealth Drive, Warrendale, PA 15096.
Telephone: (724) 776-4841; Website: <http://www.sae.org>.

(1) SAE Recommended Practice J100–1995, “Class ‘A’ Vehicle Glazing Shade Bands,” revised June 1995, into § 571.205.

(2) SAE Recommended Practice J211a, “Instrumentation for Impact Tests,” revised December 1971, into § 571.222.

(3) SAE Recommended Practice J211, “Instrumentation for Impact Tests,” revised June 1980, into §§ 571.213; 571.218.

(4) SAE Recommended Practice J211/1 MAR95, “Instrumentation for Impact Test—Part 1—Electronic Instrumentation,” revised March 1995, into §§ 571.202a; 571.208; 571.403.

(5) SAE Recommended Practice J211-1 DEC2003, “Instrumentation for Impact Test—Part 1—Electronic Instrumentation,” revised December 2003, into §§ 571.206; 571.209.

(6) SAE Recommended Practice J227a, “Electric Vehicle Test Procedure,” revised February 1976, into §§ 571.105; 571.135.

(7) SAE Standard J527a, “Brazed Double Wall Low Carbon Steel Tubing,” revised May 1967, into § 571.116.

(8) SAE Recommended Practice J567b, “Bulb Sockets,” revised April 1964, into § 571.108.

(9) SAE Recommended Practice J573d, “Lamp Bulbs and Sealed Units,” revised December 1968, into § 571.108.

(10) SAE Recommended Practice J575–1983, “Tests for Motor Vehicle Lighting Devices and Components,” revised July 1983, into § 571.131.

(11) SAE Recommended Practice J578, “Color Specification,” revised May 1988, into § 571.131.

(12) SAE Recommended Practice J578–1995, “Color Specification,” revised June 1995, into § 571.403.

(13) SAE Recommended Practice J592 JUN92, “Clearance, Side Marker, and Identification Lamps,” revised June 1992, into § 571.121.

(14) SAE Recommended Practice J592e–1972, “Clearance, Side Marker, and Identification Lamps,” revised July 1972, into § 571.121.

(15) SAE Recommended Practice J602–1963, “Headlamp Aiming Device for Mechanically Aimable Sealed Beam Headlamp Units,” reaffirmed August 1963, into § 571.108.

(16) SAE Recommended Practice J602–1980, “Headlamp Aiming Device for Mechanically Aimable Sealed Beam Headlamp Units,” revised October 1980, into § 571.108.

(17) SAE Recommended Practice J673a, “Automotive Glazing,” revised August 1967, into § 571.205(a).

(18) SAE Recommended Practice J673, “Automotive Safety Glasses,” revised April 1993, into § 571.205.

(19) SAE Recommended Practice J726 SEP79, “Air Cleaner Test Code,” revised April 1979, into § 571.209.

(20) SAE Recommended Practice J759 JAN95, “Lighting Identification Code,” revised January 1995, into § 571.121.

(21) SAE Standard J787b, “Motor Vehicle Seat Belt Anchorage,” revised September 1966, into § 571.3.

(22) SAE Recommended Practice J800c, “Motor Vehicle Seat Belt Assembly Installations,” revised November 1973, into § 571.209.

(23) SAE Standard J826–1980, “Devices for Use in Defining and Measuring Vehicle Seating Accommodation,” revised April 1980, into §§ 571.208; 571.214.

(24) SAE Standard J826 MAY87, “Devices for Use in Defining and Measuring Vehicle Seating Accommodation,” revised May 1987, into §§ 571.3; 571.210.

(25) SAE Standard J826–1992, “Devices for Use in Defining and Measuring Vehicle Seating Accommodation,” revised June 1992, into § 571.225.

(26) SAE Standard J826 JUL95, “Devices for Use in Defining and Measuring Vehicle Seating Accommodation,” revised July 1995, into §§ 571.10; 571.202; 571.202a; 571.216a.

(27) SAE Recommended Practice J839b, “Passenger Car Side Door Latch Systems,” revised May 1965, into § 571.201.

(28) SAE Recommended Practice J839–1991, “Passenger Car Side Door Latch Systems,” revised June 1991, into § 571.206.

(29) SAE Recommended Practice J902, “Passenger Car Windshield Defrosting Systems,” revised August 1964, into § 571.103.

(30) SAE Recommended Practice J902a, “Passenger Car Windshield Defrosting Systems,” revised March 1967 (Editorial change June 1967), into § 571.103.

(31) SAE Recommended Practice J903a, “Passenger Car Windshield Wiper Systems,” revised May 1966, into § 571.104.

(32) SAE Recommended Practice J921, “Instrument Panel Laboratory Impact Test Procedure,” approved June 1965, into § 571.201.

(33) SAE Recommended Practice J941, “Passenger Car Driver's Eye Range,” approved November 1965, into § 571.104.

(34) SAE Recommended Practice J941b, “Motor Vehicle Driver's Eye Range,” revised February 1969, into § 571.108.

(35) SAE Recommended Practice J942, “Passenger Car Windshield Washer Systems,” approved November 1965, into § 571.104.

(36) SAE Recommended Practice J944 JUN80, “Steering Control System—Passenger Car—Laboratory Test Procedure,” revised June 1980, into § 571.203.

(37) SAE Standard J964 OCT84, “Test Procedure for Determining Reflectivity of Rear View Mirrors,” reaffirmed October 1984, into § 571.111.

(38) SAE Recommended Practice J972, “Moving Rigid Barrier Collision Tests,” revised May 2000, into § 571.105.

(39) SAE Recommended Practice J977, “Instrumentation for Laboratory Impact Tests,” approved November 1966, into § 571.201.

(40) SAE Recommended Practice J1100a, “Motor Vehicle Dimensions,” revised September 1975, into § 571.3.

(41) SAE Recommended Practice J1100 JUN84, “Motor Vehicle Dimensions,” revised June 1984, into §§ 571.3; 571.210.

(42) SAE Recommended Practice J1100–1993, “Motor Vehicle Dimensions,” revised June 1993, into § 571.225.

(43) SAE Recommended Practice J1100, “Motor Vehicle Dimensions,” revised February 2001, into § 571.3.

(44) SAE Recommended Practice J1133, “School Bus Stop Arm,” revised April 1984, into § 571.131.

(45) SAE Standard J1703b, “Motor Vehicle Brake Fluid,” revised July 1970, into § 571.116.

(46) SAE Standard J1703 NOV83, “Motor Vehicle Brake Fluid,” revised November 1983, into § 571.116.

(47) SAE RM-66-04, “Compatibility Fluid,” Appendix B to SAE Standard J1703 JAN95, “Motor Vehicle Brake Fluid,” revised January 1995, into §§ 571.106; 571.116.

(48) SAE Recommended Practice J2009, “Discharge Forward Lighting Systems,” revised February 1993, into § 571.108.

(49) SAE Aerospace-Automotive Drawing Standards, issued September 1963, into §§ 571.104; 571.202.

(I) United Nations Economic Commission for Europe (UNECE), United Nations, Conference Services Division, Distribution and Sales Section, Office C.115-1, Palais des Nations, CH-1211, Geneva 10, Switzerland. Website:

www.unece.org/trans/main/wp29/wp29regs.html.

(1) UNECE Regulation 17 “Uniform Provisions Concerning the Approval of Vehicles with Regard to the Seats, their Anchorages and Any Head Restraints”: ECE 17 Rev. 1/Add. 16/Rev. 4 (July 31, 2002), into § 571.202.

(2) UNECE Regulation 48 “Uniform Provisions Concerning the Approval of Vehicles With Regard to the Installation of Lighting and Light-Signaling Devices,”

E/ECE/324–E/ECE/TRANS/505, Rev.1/Add.47/Rev.1/Corr.2 (February 26, 1996), into § 571.108.

3. Section 571.103 is amended by revising S4.2 and the introductory text of S4.3 to read as follows:

§ 571.103 Standard No. 103; Windshield defrosting and defogging systems.

* * * * *

S4.2 Each passenger car windshield defrosting and defogging system shall meet the requirements of section 3 of SAE Recommended Practice J902 (1964) (incorporated by reference, see § 571.5) when tested in accordance with S4.3, except that “the critical area” specified in paragraph 3.1 of SAE Recommended Practice J902 (1964) shall be that established as Area C in accordance with Motor Vehicle Safety Standard No. 104, “Windshield Wiping and Washing Systems,” and “the entire windshield” specified in paragraph 3.3 of SAE Recommended Practice J902 (1964) shall be that established as Area A in accordance with §571.104.

S4.3 Demonstration procedure. The passenger car windshield defrosting and defogging system shall be tested in accordance with the portions of paragraphs 4.1 through 4.4.7 of SAE Recommended Practice J902 (1964) or SAE Recommended Practice J902a (1967) (both incorporated by reference, see § 571.5) applicable to that system, except that—

* * * * *

4. Section 571.104 is amended:

- a. In S3 by revising the definitions of “Daylight opening,” “Glazing surface reference line,” “Overall width,” paragraph (a) in the definition of “Plan view reference line,” “Shoulder room dimension” and “95 percent eye range contour;”
- b. By revising S4.1.1.4;
- c. By revising S4.1.2;
- d. By revising the first sentence of S4.1.2.1; and
- e. By revising S4.2.1 and S4.2.2.

The revisions read as follows:

§ 571.104 Standard No. 104; Windshield wiping and washing systems.

* * * * *

S3. Definitions. * * *

Daylight opening means the maximum unobstructed opening through the glazing surface, as defined in paragraph 2.3.12 of section E, “Ground Vehicle Practice,” of SAE Aerospace-Automotive Drawing Standards (1963) (incorporated by reference, see § 571.5).

Glazing surface reference line means the line resulting from the intersection of the glazing surface and a horizontal plane 635 millimeters above the seating reference point, as shown in Figure 1 of SAE Recommended Practice J903a (1966) (incorporated by reference, see § 571.5).

Overall width means the maximum overall body width dimension “W116”, as defined in section E, “Ground Vehicle Practice,” of SAE Aerospace-Automotive Drawing Standards (1963) (incorporated by reference, see § 571.5).

Plan view reference line means—

(a) For vehicles with bench-type seats, a line parallel to the vehicle longitudinal centerline outboard of the steering wheel centerline 0.15 times the difference between one-half of the shoulder room dimension and the steering wheel centerline-to-car-centerline dimension as shown in Figure 2 of SAE Recommended Practice J903a (1966) (incorporated by reference, see § 571.5); or

* * * * *

Shoulder room dimension means the front shoulder room dimension “W3” as defined in section E, “Ground Vehicle Practice,” of SAE Aerospace-Automotive Drawing Standards (1963) (incorporated by reference, see § 571.5).

95 percent eye range contour means the 95th percentile tangential cutoff specified in SAE Recommended Practice J941 (1965) (incorporated by reference, see § 571.5).

* * * * *

S4.1.1.4 Compliance with subparagraphs S4.1.1.2 and S4.1.1.3 may be demonstrated by testing under the conditions specified in sections 4.1.1 and 4.1.2 of SAE Recommended Practice J903a (1966) (incorporated by reference, see § 571.5).

S4.1.2 Wiped area. When tested wet in accordance with SAE Recommended Practice J903a (1966) (incorporated by reference, see § 571.5), each passenger car windshield wiping system shall wipe the percentage of Areas A, B, and C of the windshield (established in accordance with S4.1.2.1) that (1) is specified in column 2 of the applicable table following subparagraph S4.1.2.1 and (2) is within the area bounded by a perimeter line on the glazing surface 25 millimeters from the edge of the daylight opening.

S4.1.2.1 Areas A, B, and C shall be established as shown in Figures 1 and 2 of SAE Recommended Practice J903a (1966) (incorporated by reference, see § 571.5) using the angles specified in Columns 3 through 6 of Table I, II, III, or IV, as applicable.* * *

* * * * *

S4.2.1 Each passenger car shall have a windshield washing system that meets the requirements of SAE Recommended Practice J942 (1965) (incorporated by reference, see § 571.5), except that the reference to “the effective wipe pattern defined in SAE J903, paragraph 3.1.2” in paragraph 3.1 of SAE Recommended Practice J942 (1965) shall be deleted and “the areas established in accordance with subparagraph S4.1.2.1 of Motor Vehicle Safety Standard No. 104” shall be inserted in lieu thereof.

S4.2.2 Each multipurpose passenger vehicle, truck, and bus shall have a windshield washing system that meets the requirements of SAE Recommended Practice J942 (1965) (incorporated by reference, see § 571.5), except that the reference to “the effective wipe pattern defined in SAE J903, paragraph 3.1.2” in paragraph 3.1 of SAE Recommended Practice J942 (1965) shall be deleted and “the pattern designed by the manufacturer for the windshield wiping system on the exterior surface of the windshield glazing” shall be inserted in lieu thereof.

5. Section 571.105 is amended by revising the definition of “skid number” in paragraph S4, and revising paragraphs S6.2.1, S6.9.2(a), S6.9.2(b), and S7.19 to read as follows:

§ 571.105 Standard No. 105; Hydraulic and electric brake systems.

* * * * *

S4 * * *

Skid number means the frictional resistance of a pavement measured in accordance with ASTM E274–70 (incorporated by reference, see § 571.5) at 40 mph, omitting water delivery as specified in paragraphs 7.1 and 7.2 of that method.

* * * * *

S6.2.1 The state of charge of the propulsion batteries is determined in accordance with SAE Recommended Practice J227a (1976) (incorporated by reference, see § 571.5). The applicable sections of SAE J227a (1976) are 3.2.1 through 3.2.4, 3.3.1 through 3.3.2.2, 3.4.1 and 3.4.2, 4.2.1, 5.2, 5.2.1, and 5.3.

* * * * *

S6.9.2(a) For vehicles with a GVWR greater than 10,000 pounds, road tests (excluding stability and control during braking tests) are conducted on a 12-foot-wide, level roadway, having a peak friction coefficient of 0.9 when measured using an ASTM E1136–93 (Reapproved 2003) (incorporated by reference, see § 571.5), standard reference test tire, in accordance with ASTM E1337–90 (Reapproved 2008) (incorporated by reference, see § 571.5), at a speed of 40 mph, without water delivery. Burnish stops are conducted on any surface. The parking brake test surface is clean, dry, smooth, Portland cement concrete.

S6.9.2(b) For vehicles with a GVWR greater than 10,000 pounds, stability and control during braking tests are conducted on a 500-foot-radius curved roadway with a wet level surface having a peak friction coefficient of 0.5 when measured on a straight or curved section of the curved roadway using an ASTM E1136–93 (Reapproved 2003)

standard reference tire, in accordance with ASTM E1337–90 (Reapproved 2008) at a speed of 40 mph, with water delivery.

* * * * *

S7.19 Moving barrier test. (Only for vehicles that have been tested according to S7.7.2.) Load the vehicle to GVWR, release parking brake, and place the transmission selector control to engage the parking mechanism. With a moving barrier as described in paragraph 4.3 of SAE Recommended Practice J972 (2000) (incorporated by reference, see § 571.5), impact the vehicle from the front at 2½ mph. Keep the longitudinal axis of the barrier parallel with the longitudinal axis of the vehicle. Repeat the test, impacting the vehicle from the rear.

Note: The vehicle used for this test need not be the same vehicle that has been used for the braking tests.

* * * * *

6. Section 571.106 is amended by:

- a. Revising S5.3.9;
- b. Revising S6.4;
- c. Revising in S6.7.1, paragraph (a);
- d. Removing the first of two paragraphs S6.9 (“End fitting corrosion resistance test”);
- e. Revising in S6.10.2, paragraph (a);
- f. Revising S6.11;
- g. Revising in S8.9, the introductory text;
- h. Revising in S9.2.8, the first sentence;
- i. Revising in S10.7, paragraph (a) and;

j. Revising in S12.7, paragraph (b).

The revisions read as follows:

§ 571.106 Standard No. 106; Brake hoses.

* * * * *

S5.3.9 Brake fluid compatibility, constriction, and burst strength. Except for brake hose assemblies designed for use with mineral or petroleum-based brake fluids, a hydraulic brake hose assembly shall meet the constriction requirement of S5.3.1 after having been subjected to a temperature of 248 degrees Fahrenheit (120 degrees Celsius) for 70 hours while filled with SAE RM-66-04 “Compatibility Fluid,” as described in Appendix B of SAE Standard J1703 JAN95 (incorporated by reference, see § 571.5). It shall then withstand water pressure of 4,000 psi for 2 minutes and thereafter shall not rupture at less than 5,000 psi (S6.2 except all sizes of hose are tested at 5,000 psi).

* * * * *

S6.4 Tensile strength test. Utilize a tension testing machine conforming to the requirements of ASTM E4-03 (incorporated by reference, see § 571.5) and provided with a recording device to measure the force applied.

* * * * *

S6.7.1 Preparation. (a) Attach a hose assembly below a 1-pint reservoir filled with 100 ml. of SAE RM-66-04 Compatibility Fluid as shown in Figure 2.

* * * * *

S6.10.2 Preparation. (a) Connect one end of the hose assembly to the pressure cycling machine and plug the other end of the hose. Fill the pressure cycling machine and hose assembly with SAE RM-66-04 “Compatibility Fluid,” as described in Appendix B of

SAE Standard J1703 JAN95 (incorporated by reference, see § 571.5) and bleed all gases from the system.

* * * *

S6.11 End fitting corrosion test. Utilize the apparatus described in ASTM B117–03 (incorporated by reference, see § 571.5).

* * * *

S8.9 Tensile strength test. Utilize a tension testing machine conforming to the requirements of ASTM E4–03 (incorporated by reference, see § 571.5) and provided with a recording device to measure the force applied.

* * * *

S9.2.8 Swell and adhesion. Following exposure to Reference Fuel B (as described in ASTM D471–98 (incorporated by reference, see § 571.5)), every inside diameter of any section of a vacuum brake hose shall not be less than 75 percent of the nominal inside diameter of the hose if for heavy duty, or 70 percent of the nominal inside diameter of the hose if for light duty. * * *

* * * *

S10.7 Swell and adhesion test. (a) Fill a specimen of vacuum brake hose 12 inches long with ASTM Reference Fuel B as described in ASTM D471–98 (incorporated by reference, see § 571.5).

* * * *

S12.7 * * *

(b) Test standards. The testing is in accordance with ASTM G154–00, ASTM G151–97, and ASTM D4329–99 (all incorporated by reference, see § 571.5).

* * * * *

7. Effective December 1, 2012, § 571.108, as amended at 72 FR 68234, December 4, 2007, delayed at 73 FR 50730, August 28, 2008, further delayed at 74 FR 58213, November 12, 2009, and further amended at 76 FR 48009, August 8, 2011, is further amended by:

- a. Revising the definition of “Color” in S4;
- b. Revising S5;
- c. Removing S5.1;
- d. Removing S5.2;
- e. Revising S6.4.5;
- f. Revising S8.1.13;
- g. Revising S8.2.1.2;
- h. Revising S9.3.5;
- i. Revising S10.14.7.7;
- j. Revising S10.15.7.6
- k. Revising S10.18.7;
- l. Revising S10.18.7.2;
- m. Revising S12.6;
- n. Revising S14.2.1.6;
- o. Revising S14.2.1.6.1;
- p. Revising S14.2.1.6.2;
- q. Revising S14.2.5.7.3;
- r. Revising the introductory sentence of S14.4.2.2.4.1,;

- s. Revising S14.4.2.2.4.4;
- t. Revising S14.5.3.2;
- u. Revising S14.5.4.1,
- v. Revising S14.6.2.1.1(a);
- w. Revising S14.6.3.1;
- x. Revising S14.6.4.1.2;
- y. Revising S14.6.5.1.2;
- z. Revising S14.7.3.1.2; and
- aa. Revising S14.7.3.3.

The revisions read as follows:

§ 571.108 Standard No. 108; Lamps, reflective devices, and associated equipment.

*	*	*	*	*
S4	*	*	*	

Color Fundamental definitions of color are expressed by Chromaticity Coordinates according to the CIE 1931 Standard Colorimetric System, as described in the CIE 1931 Chromaticity Diagram (incorporated by reference, see § 571.5).

*	*	*	*	*
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S5 References to SAE publications. Each required lamp, reflective device, and item of associated equipment must be designed to conform to the requirements of applicable SAE publications as referenced and subreferenced in this standard. The words “it is recommended that,” “recommendations,” or “should be” appearing in any SAE publication referenced or subreferenced in this standard must be read as setting forth mandatory requirements.

* * * *

S6.4.5 School bus signal lamp aiming. Each school bus signal lamp must be mounted on the vehicle with its aiming plane vertical and normal to the vehicle longitudinal axis. Aim tolerance must be no more than 5 in vertically and 10 in horizontally at 25 ft from the lamp. If the lamps are aimed or inspected by use of SAE Recommended Practice J602–1963 (incorporated by reference, see § 571.5), the graduation settings for aim must be 2° D and 0° sideways for aiming and the limits must be 3° U to 7° D and from 10° R to 10° L for inspection.

* * * *

S8.1.13 Alternative side reflex reflector material. Reflective material conforming to GSA Federal Specification L–S–300 (incorporated by reference, see § 571.5), may be used for side reflex reflectors if this material as used on the vehicle, meets the performance requirements of Table XVI–a.

* * * *

S8.2.1.2 Retroreflective sheeting material. Retroreflective sheeting must meet the requirements, except photometry, of ASTM D 4956–90 (incorporated by reference, see § 571.5) for Type V Sheeting. Sheeting of Grade DOT–C2 of no less than 50 mm wide, Grade DOT–C3 of no less than 75 mm wide, or Grade DOT–C4 of no less than 100 mm wide may be used.

* * * *

S9.3.5 The minimum required illuminated area of the indicator must be visible to any tangent on the 95th eyellipse as defined in SAE Recommended Practice J941b (1969)

(incorporated by reference, see § 571.5), with the steering wheel turned to a straight ahead driving position and in the design location for an adjustable wheel or column.

* * * * *

S10.14.7.7 Each integral beam headlamp capable of being mechanically aimed by externally applied headlamp aiming devices specified in SAE Recommended Practice J602–1980 (incorporated by reference, see § 571.5), must be designed to conform to the performance requirements of the torque deflection test of S14.6.

* * * * *

S10.15.7.6 Each replaceable bulb headlamp capable of being mechanically aimed by externally applied headlamp aiming devices specified in SAE Recommended Practice J602–1980 (incorporated by reference, see § 571.5), must be designed to conform to the performance requirements of the torque deflection test of S14.6.

* * * * *

S10.18.7 External aiming. Each headlighting system that is capable of being mechanically aimed by externally applied headlamp aiming devices must be mechanically aimable using the equipment specified in SAE Recommended Practice J602–1980 (incorporated by reference, see § 571.5), without the removal of any ornamental trim rings, covers, wipers or other vehicle parts.

* * * * *

S10.18.7.2 Nonadjustable headlamp aiming device locating plates. Each headlamp may be designed to use the nonadjustable Headlamp Aiming Device Locating Plate for the 100×165 mm unit, the 142×200 mm unit, the 146 mm diameter unit, or the 178 mm diameter unit of SAE Recommended Practice J602–1980 (incorporated by reference, see §

571.5), or the 92×150 mm Type F unit, and incorporate lens-mounted aiming pads as specified for those units pursuant to Appendix C of part 564 of this chapter. If so designed, no additional lens marking is necessary to designate the type of plate or dimensions.

* * * * *

S12.6 As an alternative to complying with the requirements of S12.1 through S12.5, a vehicle with headlamps incorporating VHAD or visual/optical aiming in accordance with this standard may meet the requirements for *Concealable lamps* in paragraph 5.14 of UNECE Regulation 48 page 17 (incorporated by reference, see § 571.5), in the English language version.

* * * * *

S14.2.1.6 Bulbs. Except for a lamp having a sealed-in bulb, a lamp must meet the applicable requirements of this standard when tested with a bulb whose filament is positioned within $\pm .010$ in of the nominal design position specified in SAE Recommended Practice J573d (1968) (incorporated by reference, see § 571.5) or specified by the bulb manufacturer and operated at the bulb's rated mean spherical candela.

S14.2.1.6.1 Each lamp designed to use a type of bulb that has not been assigned a mean spherical candela rating by its manufacturer and is not listed in SAE Recommended Practice J573d (1968) (incorporated by reference, see § 571.5), must meet the applicable requirements of this standard when used with any bulb of the type specified by the lamp manufacturer, operated at the bulb's design voltage. A lamp that contains a sealed-in bulb must meet these requirements with the bulb operated at the bulb's design voltage.

S14.2.1.6.2 A bulb that is not listed in SAE Recommended Practice J573d (1968) (incorporated by reference, see § 571.5) is not required to use a socket that conforms to the

requirements of SAE Recommended Practice J567b (1964) (incorporated by reference, see § 571.5).

* * * * *

S14.2.5.7.3 The color response of the photometer must be corrected to that of the 1931 CIE Standard Observer (2-degree) Photopic Response Curve, as shown in the CIE 1931 Chromaticity Diagram (incorporated by reference, see § 571.5).

* * * * *

S14.4.2.2.4.1 After completion of the outdoor exposure test the haze and loss of surface luster as measured by ASTM D1003–92 (incorporated by reference, see § 571.5) must not be greater than:

* * * * *

S14.4.2.2.4.4 After completion of the outdoor exposure test all materials, when compared with the unexposed control samples, must not have their luminous transmittance changed by more than 25% when tested in accordance with ASTM E308–66 (incorporated by reference, see § 571.5) using CIE Illuminant A (2856K).

* * * * *

S14.5.3.2 Procedure. The sample device with any drain hole closed must be mounted in its normal operating position, at least 6 in from the wall in a cubical box with inside measurements of 3 ft on each side containing 10 lb of fine powered cement in accordance with ASTM C150–56 (incorporated by reference, see § 571.5). At intervals of 15 minutes during a test period of 5 hours, the dust must be agitated by compressed air or fan blower by projecting blasts of air for a 2 second period in a downward direction into the dust in such a way that the dust is completely and uniformly diffused throughout the

entire cube and allowed to settle. After the completion of the dust test the exterior surface of the device must be cleaned.

* * * *

S14.5.4.1 Procedure. The sample device must be subjected to a salt spray (fog) test in accordance with the latest version of ASTM B117–73 (Reapproved 1979) (incorporated by reference, see § 571.5), for a period of 50 hours, consisting of two periods of 24 hour exposure followed by a 1 hr drying time.

* * * *

S14.6.2.1.1 * * *

(a) ASTM Reference Fuel C, which is composed of Isooctane 50% volume and Toluene 50% volume. Isooctane must conform to A2.7 in the ASTM Motor Fuels section (incorporated by reference, see § 571.5), and Toluene must conform to ASTM D362–84 (incorporated by reference, see § 571.5). ASTM Reference Fuel C must be used as specified in: Paragraph A2.3.2 and A2.3.3 of the ASTM Motor Fuels section (incorporated by reference, see § 571.5); and OSHA Standard 29 CFR 1910.106—Handling Storage and Use of Flammable Combustible Liquids;

* * * *

S14.6.3.1 Procedure. A sample headlamp, mounted on a headlamp test fixture in designed operating position and including all accessory equipment necessary to operate in its normal manner, is subjected to a salt spray (fog) test in accordance with ASTM B117–73 (incorporated by reference, see § 571.5), for 50 total hours, consisting of two periods of 24 hours exposure followed by a 1 hour drying period. If a portion of the device is completely protected in service, that portion is covered to prevent salt fog entry during

exposure. After removal from the salt spray and the final 1 hour drying period the sample headlamp is examined for corrosion that affects any other applicable tests contained in S14.6. If such corrosion is found, the affected test(s) must be performed on the corrosion sample and the results recorded.

* * * *

S14.6.4.1.2 The headlamp, with connector attached to the terminals, unfixtured and in its designed operating attitude with all drain holes, breathing devices or other designed openings in their normal operating positions, is subjected to a salt spray (fog) test in accordance with ASTM B117–73 (incorporated by reference, see § 571.5), for 240 hours, consisting of ten successive 24-hour periods.

* * * *

S14.6.5.1.2 The box contains 4.5 kg of fine powdered cement which conforms to the ASTM C150–77 (incorporated by reference, see § 571.5). Every 15 minutes, the cement is agitated by compressed air or fan blower(s) by projecting blasts of air for a two-second period in a downward direction so that the cement is diffused as uniformly as possible throughout the entire box.

* * * *

S14.7.3.1.2 Discharge source. For a light source using excited gas mixtures as a filament or discharge arc, seasoning of the light source system, including any ballast required for its operation, is made in accordance with section 4.0 of SAE Recommended Practice J2009 (1993) (incorporated by reference, see § 571.5).

* * * *

S14.7.3.3 Luminous flux measurement. The measurement of luminous flux is made in accordance with IES LM 45 (incorporated by reference, see § 571.5).

* * * *

8. Section 571.111 is amended by revising the first sentence of S11 to read as follows:

§ 571.111 Standard No. 111; Rearview mirrors.

* * * *

S11. Mirror Construction. The average reflectance of any mirror required by this standard shall be determined in accordance with SAE Standard J964 OCT84 (incorporated by reference, see § 571.5). * * *

* * * *

9. Section 571.116 is amended by:

- a. Revising the first sentence of S6.2.1;
- b. Revising S6.2.3(b);
- c. Revising the first sentence of S6.3.2(a);
- d. Revising the first sentence of S6.3.2(d);
- e. Revising the first sentence of S6.3.3(a);
- f. Revising the fourth sentence of S6.3.3(b);
- g. Revising the second sentence of S6.3.6(a);
- h. Revising the first sentence of S6.4.2;
- i. Revising S6.5.4.1;
- j. Revising the first sentence of S6.6.3(a);
- k. Revising S6.10.2(e);

- l. Revising the second sentence of S6.11.3(a);
- m. Revising S6.11.3(b)
- n. Revising the first sentence of S6.13.2;
- o. Revising the first sentence of S6.13.3(b);
- p. Revising S7.1;
- q. Revising the first two sentences of S7.2;
- r. Revising S7.4.1(b); and
- s. Revising the second sentence (after the table) of S7.6.

The revisions read as follows:

§ 571.116 Standard No. 116; Motor vehicle brake fluids.

* * * * *

S6.2.1. Summary of procedure. A 350 ml. sample of the brake fluid is humidified under controlled conditions; 350 ml. of SAE triethylene glycol monomethyl ether, brake fluid grade, referee material (TEGME) as described in appendix E of SAE Standard J1703 NOV83 (incorporated by reference, see § 571.5), is used to establish the end point for humidification. * * *

* * * * *

S6.2.3 * * *

(b) SAE TEGME referee material (see Appendix E of SAE Standard J1703 NOV83 (incorporated by reference, see § 571.5)).

* * * * *

S6.3.2 Apparatus.

(a) Viscometers. Calibrated glass capillary-type viscometers, ASTM D2515–66 (incorporated by reference, see § 571.5), measuring viscosity within the precision limits of

S6.4.7. * * *

* * * * *

(d) Thermometers. Liquid-in-Glass Kinematic Viscosity Test Thermometers, covering the range of test temperatures indicated in Table IV and conforming to ASTM E1–68 (incorporated by reference, see § 571.5), and in the IP requirements for IP Standard

Thermometers. * * *

* * * * *

S6.3.3 Standardization.

(a) Viscometers. Use viscometers calibrated in accordance with appendix 1 of ASTM D445–65 (incorporated by reference, see § 571.5). * * *

(b) Thermometers. * * * (See ASTM E77–66 (incorporated by reference, see § 571.5)).

* * * * *

S6.3.6 Calculation. (a) * * * To calculate C at test temperatures other than the calibration temperature for these viscometers, see ASTM D2515–66 (incorporated by reference, see § 571.5) or follow instructions given on the manufacturer's certificate of calibration.

* * * * *

S6.4.2 Apparatus. The pH assembly consists of the pH meter, glass electrode, and calomel electrode, as specified in Appendices A1.1, A1.2, and A1.3 of ASTM D1121–67 (incorporated by reference, see § 571.5). * * *

* * * *

S6.5.4.1 Materials. SAE RM-66-04 Compatibility Fluid as described in appendix B of SAE Standard J1703 JAN95 (incorporated by reference, see § 571.5).

* * * *

S6.6.3 Materials. (a) Corrosion test strips. Two sets of strips from each of the metals listed in Appendix C of SAE Standard J1703b (1970) (incorporated by reference, see § 571.5).

* * *

* * * *

S6.10.2 * * *

(e) SAE RM-66-04 Compatibility Fluid. As described in appendix B of SAE Standard J1703 JAN95 (incorporated by reference, see § 571.5).

* * * *

S6.11.3 * * *

(a) Benzoyl peroxide, reagent grade, 96 percent. * * * Reagent strength may be evaluated by ASTM E298-68 (incorporated by reference, see § 571.5).

(b) Corrosion test strips. Two sets of cast iron and aluminum metal test strips as described in appendix C of SAE Standard J1703b (1970) (incorporated by reference, see § 571.5).

* * * *

S6.13.2 Apparatus and equipment.

Either the drum and shoe type of stroking apparatus (see Figure 1 of SAE Standard J1703b (1970) (incorporated by reference, see § 571.5)), except using only three sets of drum and shoe assemblies, or the stroking fixture type apparatus as shown in Figure 2 of

SAE Standard J1703 NOV83 (incorporated by reference, see § 571.5) with the components arranged as shown in Figure 1 of SAE Standard J1703 NOV83. * * *

* * * * *

S6.13.3 Materials.

* * * * *

(b) Steel tubing. Double wall steel tubing meeting SAE Standard J527a (1967) (incorporated by reference, see § 571.5). * * *

* * * * *

S7.1 Distilled water. Nonreferee reagent water as specified in ASTM D1193–70 (incorporated by reference, see § 571.5) or water of equal purity.

S7.2 Water content of motor vehicle brake fluids. Use analytical methods based on ASTM D1123–59 (incorporated by reference, see § 571.5) for determining the water content of brake fluids, or other methods of analysis yielding comparable results. To be acceptable for use, such other method must measure the weight of water added to samples of the SAE RM–66–04 (see Appendix A of SAE Standard J1703 NOV83 (incorporated by reference in § 571.5)) and TEGME Compatibility Fluids (see Appendix B of SAE Standard J1703 JAN95 (incorporated by reference in § 571.5)) within ± 15 percent of the water added for additions up to 0.8 percent by weight, and within ± 5 percent of the water added for additions greater than 0.8 percent by weight. * * *

* * * * *

S7.4.1 * * *

(b) Hardness tester. A hardness tester meeting the requirements for the standard instrument as described in ASTM D1415–68 (incorporated by reference, see § 571.5) and graduated directly in IRHD units.

* * * *

S7.6 * *

Compounding, vulcanization, physical properties, size of the finished cups, and other details shall be as specified in appendix B of SAE Standard J1703b (1970) (incorporated by reference, see § 571.5).

* * * *

10. Section 571.121 is amended by revising S5.2.3.3(b)(1) and S6.1.7 to read:

§ 571.121 Standard No. 121; Air brake systems.

* * * *

S5.2.3.3 * *

(b)(1) The lamp shall be designed to conform to the performance requirements of SAE Recommended Practice J592 JUN92 (incorporated by reference, see § 571.5), or SAE Recommended Practice J592e (1972) (incorporated by reference, see § 571.5), for combination, clearance, and side marker lamps, which are marked with a “PC” or “P2” on the lens or housing, in accordance with SAE Recommended Practice J759 JAN95 (incorporated by reference, see § 571.5).

* * * *

S6.1.7 Unless otherwise specified, stopping tests are conducted on a 12-foot wide level, straight roadway having a peak friction coefficient of 0.9. For road tests in S5.3, the vehicle is aligned in the center of the roadway at the beginning of a stop. Peak friction

coefficient is measured using an ASTM E1136 standard reference test tire (see ASTM E1136–93 (Reapproved 2003) (incorporated by reference, see § 571.5)) in accordance with ASTM Method E1337–90 (Reapproved 2008) (incorporated by reference, see § 571.5), at a speed of 40 mph, without water delivery for the surface with PFC of 0.9, and with water delivery for the surface with PFC of 0.5.

* * * *

11. Section 571.122 is amended by revising the definition of “Skid number” in S4 to read as follows:

§ 571.122 Standard No. 122; Motorcycle brake systems.

* * * *

S4 * * *

Skid number means the frictional resistance of a pavement measured in accordance with ASTM E274–70 (incorporated by reference, see § 571.5) at 40 mph, omitting water delivery as specified in paragraphs 7.1 and 7.2 of that method.

* * * *

12. Section 571.125 is amended by revising S6.1.1(d) to read as follows:

§ 571.125 Standard No. 125; Warning devices.

* * * *

S6.1.1 * * *

(d) Salt spray (fog) test in accordance with ASTM B117–64 (incorporated by reference, see § 571.5), except that the test shall be for 4 hours rather than 40 hours; and

* * * *

13. Section 571.126 is amended by revising S3, removing S3.1 and S3.2, and revising S6.2.2 to read as follows:

§ 571.126 Standard No. 126; Electronic stability control systems.

* * * * *

S3 Application. This standard applies to passenger cars, multipurpose passenger vehicles, trucks, and buses with a gross vehicle weight rating of 4,536 kilograms (10,000 pounds) or less, according to the phase-in schedule specified in S8 of this standard.

* * * * *

S6.2.2 The road test surface must produce a peak friction coefficient (PFC) of 0.9 when measured using an ASTM E1136–93 (Reapproved 2003) (incorporated by reference, see § 571.5) standard reference test tire, in accordance with ASTM E1337–90 (Reapproved 2008) (incorporated by reference, see § 571.5) at a speed of 64.4 km/h (40 mph), without water delivery.

* * * * *

14. Section 571.131 is amended by revising S6.2.1 and revising S6.2.3 to read as follows:

§ 571.131 Standard No. 131; School bus pedestrian safety devices.

* * * * *

S6.2.1 *Color*. The procedure shall be done in accordance with SAE Recommended Practice J578–1988 (incorporated by reference, see § 571.5). When visually compared to the light emitted from a filter/source with a combination of chromaticity coordinates as explained in SAE Recommended Practice J578–1988 within specific boundaries [$y=0.33$ (yellow boundary) and $y=0.98—x$ (purple boundary)] the color of light emitted from the

test object shall not be less saturated (paler), yellower, or purpler. The test object shall be placed perpendicular to the light source to simulate lamps on stop signal arms. In making visual comparisons, the light from the test object shall light one portion of a comparison field and the light from the filter/source standard shall light an adjacent area. To make a valid visual comparison, the two fields to be viewed shall be of near equal luminance.

* * * * *

S6.2.3 Vibration, Moisture, Dust, Corrosion, Photometry, and Warpage Tests. The procedure shall be done in accordance with SAE Recommended Practice J575–1983 (incorporated by reference, see § 571.5) and SAE Recommended Practice J1133 (1984) (incorporated by reference, see § 571.5). Lamps and lighting components shall meet the criteria for vibration, moisture, dust, corrosion, photometry, and warpage in SAE Recommended Practice J575–1983 and SAE Recommended Practice J1133 (1984) under the test conditions specified herein.

15. Section 571.135 is amended by revising S6.2.1 and S6.3.11.1 to read as follows:

§ 571.135 Standard No. 135; Light vehicle brake systems.

* * * * *

S6.2.1. Pavement friction. Unless otherwise specified, the road test surface produces a peak friction coefficient (PFC) of 0.9 when measured using an ASTM E1136-93 (Reapproved 2003) (incorporated by reference, see § 571.5) standard reference test tire, in accordance with ASTM E1337–90 (Reapproved 2008) (incorporated by reference, see § 571.5), at a speed of 64.4 km/h (40 mph), without water delivery.

* * * * *

S6.3.11.1 The state of charge of the propulsion batteries is determined in accordance with SAE Recommended Practice J227a (1976) (incorporated by reference, see § 571.5). The applicable sections of J227a (1976) are 3.2.1 through 3.2.4, 3.3.1 through 3.3.2.2, 3.4.1 and 3.4.2, 4.2.1, 5.2, 5.2.1 and 5.3.

* * * *

16. Section 571.139 is amended by revising S2, removing S2.1 and S2.2, and revising the definition of “Snow tire” in S3 to read as follows:

§ 571.139 Standard No. 139; New pneumatic radial tires for light vehicles.

* * * *

S2 Application. This standard applies to new pneumatic radial tires for use on motor vehicles (other than motorcycles and low speed vehicles) that have a gross vehicle weight rating (GVWR) of 10,000 pounds or less and that were manufactured after 1975. This standard does not apply to special tires (ST) for trailers in highway service, tires for use on farm implements (FI) in agricultural service with intermittent highway use, tires with rim diameters of 8 inches and below, or T-type temporary use spare tires with radial construction.

S3 * * *

Snow tire means a tire that attains a traction index equal to or greater than 110, compared to the ASTM E1136–93 (Reapproved 2003) (incorporated by reference, see § 571.5) Standard Reference Test Tire when using the snow traction test as described in ASTM F1805–00 (incorporated by reference, see § 571.5), and that is marked with an Alpine Symbol specified in S5.5(i) on at least one sidewall.

* * * *

17. Section 571.201 is amended by revising the introductory sentence of S5.1.2, the introductory sentence of S5.2.2, and S5.3.1 to read as follows:

§ 571.201 Standard No. 201; Occupant protection in interior impact.

* * * * *

S5.1.2 Demonstration procedures. Tests shall be performed as described in SAE Recommended Practice J921 (1965) (incorporated by reference, see § 571.5), using the specified instrumentation or instrumentation that meets the performance requirements specified in SAE Recommended Practice J977 (1966) (incorporated by reference, see § 571.5), except that:

* * * * *

S5.2.2 Demonstration procedures. Tests shall be performed as described in SAE Recommended Practice J921 (1965) (incorporated by reference, see § 571.5), using the specified instrumentation or instrumentation that meets the performance requirements specified in SAE Recommended Practice J977 (1966) (incorporated by reference, see § 571.5), except that:

* * * * *

S5.3.1 Demonstration procedures.

(a) Subject the interior compartment door latch system to an inertia load of 10g in a horizontal transverse direction and an inertia load of 10g in a vertical direction in accordance with the procedure described in section 5 of SAE Recommended Practice J839b (1965) (incorporated by reference, see § 571.5), or an approved equivalent.

(b) Impact the vehicle perpendicularly into a fixed collision barrier at a forward longitudinal velocity of 48 kilometers per hour.

(c) Subject the interior compartment door latch system to a horizontal inertia load of 30g in a longitudinal direction in accordance with the procedure described in section 5 of SAE Recommended Practice J839b (1965) (incorporated by reference, see § 571.5), or an approved equivalent.

* * * *

18. Section 571.202 is amended by revising the definition of “Height” in S3, removing and reserving S4.3, revising S4.4(a), revising S5.1(a)(3), revising S5.1(a)(4), and revising S5.2(a) to read as follows:

§ 571.202 Standard No. 202; Head restraints; Applicable at the manufacturer’s option until September 1, 2009.

* * * *

S3 * *

Height means, when used in reference to a head restraint, the distance from the H-point, measured parallel to the torso reference line defined by the three dimensional SAE Standard J826 JUL95 (incorporated by reference, see § 571.5) manikin, to a plane normal to the torso reference line.

* * * *

S4.4 * *

(a) The head restraint must comply with Paragraphs 5.1.1, 5.1.3, 5.3.1, 5.5 through 5.13, 6.1.1, 6.1.3, and 6.4 through 6.8 of the English language version of the UNECE Regulation 17 (incorporated by reference, see § 571.5).

* * * *

S5.1 * *

(a) * * *

(3) Position the SAE Standard J826 JUL95 (incorporated by reference, see § 571.5) two-dimensional manikin's back against the flat surface specified in S5.1(a)(1) of this section, alongside the dummy with the H-point of the manikin aligned with the H-point of the dummy.

(4) Establish the torso line of the manikin as defined in SAE Aerospace-Automotive Drawing Standards (1963) (incorporated by reference, see § 571.5), sec. 2.3.6, P.E1.01.

* * * * *

S5.2 * * *

(a) Place a test device, having the back plan dimensions and torso line (centerline of the head room probe in full back position), of the three dimensional SAE Standard J826 JUL95 (incorporated by reference, see § 571.5) manikin, at the manufacturer's recommended design seated position.

* * * * *

19. Section 571.202a is amended by:

- a. Revising S2;
- b. Removing S2.1;
- c. Removing S2.2;
- d. Revising the definitions of “Head Restraint Measurement Device (HRMD)” and “Height” in S3;
- e. Revising S5;
- f. Revising S5.1;
- g. Revising S5.1.1;

- h. Revising S5.2;
- i. Revising the introductory text of S5.2.1;
- j. Revising S5.2.2;
- k. Revising S5.2.5(b);
- l. Revising S5.2.7(a)(3);
- m. Revising the first sentence of S5.3.4;
- n. Revising S5.3.8;
- o. Revising S5.3.9;
- p. Revising S5.3.10;
- q. Revising S5.4(b)(2);
- r. Revising S5.4(b)(4); and
- s. Revising S7.2.1.

The revisions read as follows:

§ 571.202a Standard No. 202a; Head restraints; Mandatory applicability begins on September 1, 2009.

* * * * *

S2 Application. This standard applies to passenger cars, and to multipurpose passenger vehicles, trucks and buses with a GVWR of 4,536 kg or less, manufactured on or after September 1, 2009. However, the standard's requirements for rear head restraints do not apply to vehicles manufactured before September 1, 2010, and, for vehicles manufactured between September 1, 2010 and August 31, 2011, the requirements for rear head restraints apply only to the extent provided in S7. Until September 1, 2009, manufacturers may comply with the standard in this §571.202a, with the standard in

§571.202, or with the European regulations referenced in S4.3(a) of §571.202. For vehicles manufactured on or after September 1, 2009 and before September 1, 2010, manufacturers may comply with the standard in §571.202 or with the European regulations referenced in S4.3(a) of §571.202, instead of the standard in this §571.202a, only to the extent consistent with the phase-in specified in this §571.202a.

S3 * * *

Head restraint measurement device (HRMD) means the three dimensional SAE Standard J826 JUL95 (incorporated by reference, see § 571.5) manikin with a head form attached, representing the head position of a seated 50th percentile male, with sliding scale at the back of the head for the purpose of measuring backset. The head form is designed by and available from the ICBC, 151 West Esplanade, North Vancouver, BC V7M 3H9, Canada (*www.icbc.com*).

Height means, when used in reference to a head restraint, the distance from the H-point, measured parallel to the torso reference line defined by the three dimensional SAE Standard J826 JUL95 (incorporated by reference, see § 571.5) manikin, to a plane normal to the torso reference line.

* * * * *

S5. Procedures. Demonstrate compliance with S4.2 through S4.4 of this section with any adjustable lumbar support adjusted to its most posterior nominal design position. If the seat cushion adjusts independently of the seat back, position the seat cushion such that the highest H-point position is achieved with respect to the seat back, as measured by SAE Standard J826 JUL95 (incorporated by reference, see § 571.5) manikin, with leg length specified in S10.4.2.1 of §571.208 of this part. If the specified position of the H-

point can be achieved with a range of seat cushion inclination angles, adjust the seat inclination such that the most forward part of the seat cushion is at its lowest position with respect to the most rearward part. All tests specified by this standard are conducted with the ambient temperature between 18 degrees C. and 28 degrees C.

S5.1 Except as specified in S5.2.3 and S5.3 of this section, if the seat back is adjustable, it is set at an initial inclination position closest to the manufacturer's design seat back angle, as measured by SAE Standard J826 JUL95 (incorporated by reference, see § 571.5) manikin. If there is more than one inclination position closest to the design angle, set the seat back inclination to the position closest to and rearward of the design angle.

S5.1.1 Procedure for determining presence of head restraints in rear outboard seats. Measure the height of the top of a rear seat back or the top of any independently adjustable seat component attached to or adjacent to the rear seat back in its highest position of adjustment using the scale incorporated into the SAE Standard J826 JUL95 (incorporated by reference, see § 571.5) manikin or an equivalent scale, which is positioned laterally within 15 mm of the centerline of the rear seat back or any independently adjustable seat component attached to or adjacent to the rear seat back.

S5.2 Dimensional and static performance procedures. Demonstrate compliance with S4.2 of this section in accordance with S5.2.1 through S5.2.7 of this section. Position the SAE Standard J826 JUL95 (incorporated by reference, see § 571.5) manikin according to the seating procedure found in SAE Standard J826 JUL95.

S5.2.1 Procedure for height measurement. Demonstrate compliance with S4.2.1 of this section in accordance with S5.2.1 (a) and (b) of this section, using the headroom probe scale incorporated into the SAE Standard J826 JUL95 (incorporated by reference, see §

571.5) manikin with the appropriate offset for the H-point position or an equivalent scale, which is positioned laterally within 15 mm of the head restraint centerline. If the head restraint position is independent of the seat back inclination position, compliance is determined at a seat back inclination position closest to the design seat back angle, and each seat back inclination position less than the design seat back angle.

* * * *

S5.2.2 Procedure for width measurement. Demonstrate compliance with S4.2.2 of this section using calipers to measure the maximum dimension perpendicular to the vehicle vertical longitudinal plane of the intersection of the head restraint with a plane that is normal to the torso reference line of SAE Standard J826 JUL95 (incorporated by reference, see § 571.5) manikin and 65 ± 3 mm below the top of the head restraint.

* * * *

S5.2.5 * * *

(b) Instrument the impactor with an acceleration sensing device whose output is recorded in a data channel that conforms to the requirements for a 600 Hz channel class as specified in SAE Recommended Practice J211/1 MAR95 (incorporated by reference, see § 571.5). The axis of the acceleration-sensing device coincides with the geometric center of the head form and the direction of impact.

* * * *

S5.2.7 * * *

(a) * * *

(3) In the seat, place a test device having the back pan dimensions and torso reference line (vertical center line), when viewed laterally, with the head room probe in the

full back position, of the three dimensional SAE Standard J826 JUL95 (incorporated by reference, see § 571.5) manikin;

* * * *

S5.3.4 Seat Adjustment. At each outboard designated seating position, if the seat back is adjustable, it is set at an initial inclination position closest to 25 degrees from the vertical, as measured by SAE Standard J826 JUL95 (incorporated by reference, see § 571.5) manikin.

* * *
* * *

S5.3.8 Accelerate the dynamic test platform to 17.3 ± 0.6 km/h. All of the points on the acceleration vs. time curve fall within the corridor described in Figure 1 and Table 1 when filtered to channel class 60, as specified in the SAE Recommended Practice J211/1 MAR95 (incorporated by reference, see § 571.5). Measure the maximum posterior angular displacement.

S5.3.9 Calculate the angular displacement from the output of instrumentation placed in the torso and head of the test dummy and an algorithm capable of determining the relative angular displacement to within one degree and conforming to the requirements of a 600 Hz channel class, as specified in SAE Recommended Practice J211/1 MAR95 (incorporated by reference, see § 571.5). No data generated after 200 ms from the beginning of the forward acceleration are used in determining angular displacement of the head with respect to the torso.

S5.3.10 Calculate the HIC_{15} from the output of instrumentation placed in the head of the test dummy, using the equation in S4.3.1(b) of this section and conforming to the requirements for a 1000 Hz channel class as specified in SAE Recommended Practice

J211/1 MAR95 (incorporated by reference, see § 571.5). No data generated after 200 ms from the beginning of the forward acceleration are used in determining HIC.

* * * *

S5.4 * *

(b) * *

(2) Strike a line on the head restraint. Measure the angle or range of angles of the head restraint reference line as projected onto a vertical longitudinal vehicle plane.

Alternatively, measure the torso reference line angle with the SAE Standard J826 JUL95 (incorporated by reference, see § 571.5) manikin;

* * * *

(4) Determine the minimum change in the head restraint reference line angle as projected onto a vertical longitudinal vehicle plane from the angle or range of angles measured in 5.4(b)(2). Alternatively, determine the change in the torso reference line angle with the SAE Standard J826 JUL95 (incorporated by reference, see § 571.5) manikin.

* * * *

S7.2.1 For the purpose of calculating average annual production of vehicles for each manufacturer and the number of vehicles manufactured by each manufacturer under S7.1, a vehicle produced by more than one manufacturer shall be attributed to a single manufacturer as follows, subject to S7.2.2.

* * * *

20. Section 571.203 is amended by revising the introductory text of S5.1, revising S5.1(a), and removing and reserving S5.1(b) to read as follows:

§ 571.203 Standard No. 203; Impact protection for the driver from the steering control system.

* * * *

S5.1 Except as provided in this paragraph, the steering control system of any vehicle to which this standard applies shall be impacted in accordance with S5.1(a).

(a) When the steering control system is impacted by a body block in accordance with SAE Recommended Practice J944 JUN80 (incorporated by reference, see § 571.5), at a relative velocity of 24 km/h, the impact force developed on the chest of the body block transmitted to the steering control system shall not exceed 11,120 N, except for intervals whose cumulative duration is not more than 3 milliseconds.

* * * *

21. Section 571.205 is amended by removing S3, redesignating S3.1 as S3, removing S3.2, revising S5.1, revising S5.1.1, revising S5.1.3, revising S5.2, and revising S5.3.1 to read as follows:

§ 571.205 Standard No. 205, Glazing materials.

* * * *

S5.1 Glazing materials for use in motor vehicles must conform to ANSI/SAE Z26.1–1996 (incorporated by reference, see § 571.5), unless this standard provides otherwise. SAE Recommended Practice J673 (1993) (incorporated by reference, see § 571.5) is referenced in ANSI/SAE Z26.1–1996.

S5.1.1 Multipurpose passenger vehicles. Except as otherwise specifically provided by this standard, glazing for use in multipurpose passenger vehicles shall conform to the

requirements for glazing for use in trucks as specified in ANSI/SAE Z26.1–1996 (incorporated by reference, see § 571.5).

* * * * *

S5.1.3 Location of arrow within “AS” markings. In ANSI/SAE Z26.1–1996 (incorporated by reference, see § 571.5) Section 7. “Marking of Safety Glazing Materials,” on page 33, in the right column, in the first complete sentence, the example markings “AS↓1”, “AS↓14” and “AS↑2” are corrected to read “A↓S1”, “A↓S14” and “A↑S2”. Note that the arrow indicating the portion of the material that complies with Test 2 is placed with its base adjacent to a horizontal line.

S5.2 Each of the test specimens described in ANSI/SAE Z26.1–1996 (incorporated by reference, see § 571.5) Section 5.7 (fracture test) must meet the fracture test requirements of that section when tested in accordance with the test procedure set forth in that section.

* * * * *

S5.3.1 Shade bands for windshields shall comply with SAE Recommended Practice J100 (1995) (incorporated by reference, see § 571.5).

* * * * *

22. Section 571.205(a) is amended by revising:

- a. The first sentence of S5.1.1;
- b. The introductory text of S5.1.1.1;
- c. S5.1.1.1(d);
- d. The introductory text of S5.1.1.2;
- e. The introductory text of S5.1.1.3;

- f. The introductory sentence of S5.1.1.4;
- g. S5.1.1.5, S5.1.1.6, S5.1.1.7, and S5.1.2;
- h. The first sentence of S5.1.2.1;
- i. The introductory text of S5.1.2.2
- j. The introductory text of S5.1.2.3;
- k. The introductory sentence of S5.1.2.11, S5.2;
- l. The first sentence of S6.1; and
- m. S6.2 and S6.4.

The revisions read as follows:

§ 571.205(a) Glazing equipment manufactured before September 1, 2006 and glazing materials used in vehicles manufactured before November 1, 2006.

* * * * *

S5.1.1 Glazing materials for use in motor vehicles, except as otherwise provided in this standard shall conform to ANSI Z26.1–1977, as amended by ANSI Z26.1a–1980 (both incorporated by reference, see § 571.5). * * *

* * * * *

S5.1.1.1 The chemicals specified for testing chemical resistance in Tests Nos. 19 and 20 of ANSI Z26.1–1977, as amended by ANSI Z26.1a–1980 (both incorporated by reference, see § 571.5) shall be:

* * * * *

(d) Gasoline, ASTM Reference Fuel C, which is composed of Isooctane 50 volume percentage and Toluene 50 volume percentage. Isooctane must conform to A2.7 in the ASTM Motor Fuels section (incorporated by reference, see § 571.5), and Toluene must

conform to ASTM D362–84 (incorporated by reference, see § 571.5), Standard Specification for Industrial Grade Toluene. ASTM Reference Fuel C must be used as specified in:

(1) Paragraph A2.3.2 and A2.3.3 in the ASTM Motor Fuels section (incorporated by reference, see § 571.5); and

(2) OSHA Standard 29 CFR 1910.106—“Handling Storage and Use of Flammable Combustible Liquids.”

S5.1.1.2 The following locations are added to the lists specified in ANSI Z26.1–1977, as amended by ANSI Z26.1a–1980 (both incorporated by reference, see § 571.5) in which item 4, item 5, item 8, and item 9 safety glazing may be used:

* * * * *

S5.1.1.3 The following locations are added to the lists specified in ANSI Z26.1–1977, as amended by ANSI Z26.1a–1980 (both incorporated by reference, see § 571.5) in which item 6 and item 7 safety glazing may be used:

* * * * *

S5.1.1.4 The following locations are added to the lists specified in ANSI Z26.1–1977, as amended by ANSI Z26.1a–1980 (both incorporated by reference, see § 571.5) in which item 8 and item 9 safety glazing may be used:

* * * * *

S5.1.1.5 The phrase “readily removable” windows as defined in ANSI Z26.1–1977, as amended by ANSI Z26.1a–1980 (both incorporated by reference, see § 571.5), for the purposes of this standard, in buses having a GVWR of more than 4536 kilograms (10,000 pounds), shall include pushout windows and windows mounted in emergency exits

that can be manually pushed out of their location in the vehicle without the use of tools, regardless of whether such windows remain hinged at one side to the vehicle.

S5.1.1.6 Multipurpose passenger vehicles. Except as otherwise specifically provided by this standard, glazing for use in multipurpose passenger vehicles shall conform to the requirements for glazing for use in trucks as specified in ANSI Z26.1–1977, as amended by ANSI Z26.1a–1980 (both incorporated by reference, see § 571.5).

S5.1.1.7 Test No. 17 is deleted from the list of tests specified in ANSI Z26.1–1977, as amended by ANSI Z26.1a–1980 (both incorporated by reference, see § 571.5) for Item 5 glazing material and Test No. 18 is deleted from the lists of tests specified in ANSI Z26.1–1977, as amended by ANSI Z26.1a–1980, for Item 3 and Item 9 glazing material.

S5.1.2 In addition to the glazing materials specified in ANSI Z26.1–1977, as amended by ANSI Z26.1a–1980 (both incorporated by reference, see § 571.5), materials conforming to S5.1.2.1, S5.1.2.2, S5.1.2.3, S5.1.2.4, S5.1.2.5, S5.1.2.6, S5.1.2.7, S5.1.2.8, and S5.1.2.11 may be used in the locations of motor vehicles specified in those sections.

S5.1.2.1 Item 11C—Safety Glazing Material for Use in Bullet Resistant Shields. Bullet resistant glazing that complies with Tests Nos. 2, 17, 19, 20, 21, 24, 27, 28, 29, 30 and 32 of ANSI Z26.1–1977, as amended by ANSI Z26.1a–1980 (both incorporated by reference, see § 571.5) and the labeling requirements of S5.1.2.5 may be used only in bullet resistant shields that can be removed from the motor vehicle easily for cleaning and maintenance. * * *

S5.1.2.2 Item 12—Rigid Plastics. Safety plastics materials that comply with Tests Nos. 10, 13, 16, 19, 20, 21, and 24 of ANSI Z26.1–1977, as amended by ANSI Z26.1a–1980 (both incorporated by reference, see § 571.5), with the exception of the test for

resistance to undiluted denatured alcohol Formula SD No. 30, and that comply with the labeling requirements of S5.1.2.5, may be used in a motor vehicle only in the following specified locations at levels not requisite for driving visibility.

* * * * *

S5.1.2.3 Item 13—Flexible plastics. Safety plastic materials that comply with Tests Nos. 16, 19, 20, 22, and 23 or 24 of ANSI Z26.1–1977, as amended by ANSI Z26.1a–1980 (both incorporated by reference, see § 571.5), with the exception of the test for resistance to undiluted denatured alcohol Formula SD No. 30, and that comply with the labeling requirements of S5.1.2.5 may be used in the following specific locations at levels not requisite for driving visibility.

* * * * *

S5.1.2.11 Test Procedures for Item 4A—Rigid Plastic for Use in Side Windows Rearward of the “C” Pillar. (a) Glazing materials that comply with Tests Nos. 2, 10, 13, 16, 17, as that test is modified in S5.1.2.9(c) (on the interior side only), 17, as that test is modified in paragraph (b) of this section (on the exterior side only), 19, 20, 21, and 24 of ANSI Z26.1–1977, as amended by ANSI Z26.1a–1980 (both incorporated by reference, see § 571.5), may be used in the following specific locations:

* * * * *

S5.2 Edges. In vehicles except schoolbuses, exposed edges shall be treated in accordance with SAE Recommended Practice J673a (1967) (incorporated by reference, see § 571.5). In schoolbuses, exposed edges shall be banded.

* * * * *

S6.1 Each prime glazing material manufacturer, except as specified below, shall mark the glazing materials it manufactures in accordance with section 6 of ANSI Z26.1–1977, as amended by ANSI Z26.1a–1980 (both incorporated by reference, see § 571.5). *

* *

* * * *

S6.2 Each prime glazing material manufacturer shall certify each piece of glazing material to which this standard applies that is designed as a component of any specific motor vehicle or camper, pursuant to section 114 of the National Traffic and Motor Vehicle Safety Act of 1966 (49 U.S.C. §30115), by adding to the mark required by S6.1 in letters and numerals of the size specified in section 6 of ANSI Z26.1–1977, as amended by ANSI Z26.1a–1980 (both incorporated by reference, see § 571.5), the symbol “DOT” and a manufacturer's code mark, which will be assigned by NHTSA on the written request of the manufacturer.

* * * *

S6.4 Each manufacturer or distributor who cuts a section of glazing material to which this standard applies, for use in a motor vehicle or camper, shall mark that material in accordance with section 6 of ANSI Z26.1–1977, as amended by ANSI Z26.1a–1980 (both incorporated by reference, see § 571.5).

* * * *

23. Section 571.206 is amended by revising S5.1.1.4(a) and S5.1.1.4(b)(3)(i) to read as follows:

§ 571.206 Standard No. 206; Door locks and door retention components.

* * * *

S5.1.1.4 * * *

(a) Calculation. The calculation is performed in accordance with paragraph 6 of SAE Recommended Practice J839 (1991) (incorporated by reference, see § 571.5).

* * * * *

(b) * * *

(3) * * *

(i) The acceleration device platform shall be instrumented with an accelerometer and data processing system that conforms to the requirements specified in SAE Recommended Practice J211-1 DEC2003 (incorporated by reference, see § 571.5) Channel Class 60. The accelerometer sensitive axis is parallel to the direction of test platform travel.

* * * * *

24. Section 571.208 is amended by removing and reserving S4.7, and revising S4.13, S6.6(a)(1), S8.1.8.2, S8.2.5, S8.3.2, S10.4.2.1, S13.1, S15.3.6(a)(1), S16.2.5, S19.4.4(a)(1), S21.5.5(a)(1), S23.5.5(a)(1), and S25.4(a)(1) to read as follows:

§ 571.208 Standard No. 208; Occupant crash protection.

* * * * *

S4.13 Data channels. For vehicles manufactured on or after September 1, 2001, all data channels used in injury criteria calculations shall be filtered using a phaseless digital filter, such as the Butterworth four-pole phaseless digital filter specified in appendix C of SAE Recommended Practice J211/1 MAR95 (incorporated by reference, see § 571.5).

* * * * *

S6.6 * * *

(a) * * *

(1) The shear force (F_x), axial force (F_z), and bending moment (M_y) shall be measured by the dummy upper neck load cell for the duration of the crash event as specified in S4.11. Shear force, axial force, and bending moment shall be filtered for Nij purposes at SAE Recommended Practice J211/1 MAR95 (incorporated by reference, see § 571.5) Channel Frequency Class 600.

* * * *

S8.1.8.2 Each test dummy is clothed in a form fitting cotton stretch short sleeve shirt with above-the-elbow sleeves and above-the-knee length pants. The weight of the shirt or pants shall not exceed 0.25 pounds each. Each foot of the test dummy is equipped with a size 11XW shoe which meets the configuration size, sole, and heel thickness specifications of MIL-S-13192P (incorporated by reference, see § 571.5) change “P” and whose weight is 1.25 ± 0.2 pounds.

* * * *

S8.2.5 The concrete surface upon which the vehicle is tested is level, rigid and of uniform construction, with a skid number of 75 when measured in accordance with ASTM E274–65T (incorporated by reference, see § 571.5) at 40 m.p.h., omitting water delivery as specified in paragraph 7.1 of that method.

* * * *

S8.3.2 The concrete surface on which the test is conducted is level, rigid, of uniform construction, and of a sufficient size that the vehicle remains on it throughout the entire rollover cycle. It has a skid number of 75 when measured in accordance with ASTM E274–65T (incorporated by reference, see § 571.5) at 40 m.p.h. omitting water delivery as specified in paragraph 7.1 of that method.

* * * *

S10.4.2.1 H-point. The H-points of the driver and passenger test dummies shall coincide within 1/2 inch in the vertical dimension and 1/2 inch in the horizontal dimension of a point 1/4 inch below the position of the H-point determined by using the equipment and procedures specified in SAE Standard J826–1980 (incorporated by reference, see § 571.5), except that the length of the lower leg and thigh segments of the H-point machine shall be adjusted to 16.3 and 15.8 inches, respectively, instead of the 50th percentile values specified in Table 1 of SAE Standard J826–1980.

* * * *

S13.1 Instrumentation for Impact Test—Part 1—Electronic Instrumentation. Under the applicable conditions of S8, mount the vehicle on a dynamic test platform at the vehicle attitude set forth in S13.3, so that the longitudinal center line of the vehicle is parallel to the direction of the test platform travel and so that movement between the base of the vehicle and the test platform is prevented. The test platform is instrumented with an accelerometer and data processing system having a frequency response of 60 channel class as specified in SAE Recommended Practice J211/1 MAR95 (incorporated by reference, see § 571.5). The accelerometer sensitive axis is parallel to the direction of test platform travel. The test is conducted at a velocity change approximating 48 km/h (30 mph) with acceleration of the test platform such that all points on the crash pulse curve within the corridor identified in Figure 6 are covered. An inflatable restraint is to be activated at 20 ms \pm 2 ms from the time that 0.5 g is measured on the dynamic test platform. The test dummy specified in S8.1.8, placed in each front outboard designated seating position as specified in S10, excluding

S10.7, S10.8, and S10.9, shall meet the injury criteria of S6.1, S6.2(a), S6.3, S6.4(a), S6.5, and S13.2 of this standard.

*	*	*	*	*
	S15.3.6		*	*
	(a)	*	*	*

(1) The shear force (F_x), axial force (F_z), and bending moment (M_y) shall be measured by the dummy upper neck load cell for the duration of the crash event as specified in S4.11. Shear force, axial force, and bending moment shall be filtered for N_{ij} purposes at SAE Recommended Practice J211/1 MAR95 (incorporated by reference, see § 571.5) Channel Frequency Class 600.

*	*	*	*	*
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S16.2.5 The dummy is clothed in form fitting cotton stretch garments with short sleeves and above the knee length pants. A size 7 1/2W shoe which meets the configuration and size specifications of MIL-S-21711E (incorporated by reference, see § 571.5) or its equivalent is placed on each foot of the test dummy.

*	*	*	*	*
	S19.4.4		*	*
	(a)	*	*	*

(1) The shear force (F_x), axial force (F_z), and bending moment (M_y) shall be measured by the dummy upper neck load cell for the duration of the crash event as specified in S4.11. Shear force, axial force, and bending moment shall be filtered for N_{ij} purposes at SAE Recommended Practice J211/1 MAR95 (incorporated by reference, see § 571.5) Channel Frequency Class 600.

*	*	*	*	*
S21.5.5		*	*	*
(a)	*	*	*	

(1) The shear force (F_x), axial force (F_z), and bending moment (M_y) shall be measured by the dummy upper neck load cell for the duration of the crash event as specified in S4.11. Shear force, axial force, and bending moment shall be filtered for Nij purposes at SAE Recommended Practice J211/1 MAR95 (incorporated by reference, see § 571.5) Channel Frequency Class 600.

*	*	*	*	*
S23.5.5		*	*	*
(a)	*	*	*	

(1) The shear force (F_x), axial force (F_z), and bending moment (M_y) shall be measured by the dummy upper neck load cell for the duration of the crash event as specified in S4.11. Shear force, axial force, and bending moment shall be filtered for Nij purposes at SAE Recommended Practice J211/1 MAR95 (incorporated by reference, see § 571.5) Channel Frequency Class 600.

*	*	*	*	*
S25.4	*	*	*	
(a)	*	*	*	

(1) The shear force (F_x), axial force (F_z), and bending moment (M_y) shall be measured by the dummy upper neck load cell for the duration of the crash event as specified in S4.11. Shear force, axial force, and bending moment shall be filtered for Nij

purposes at SAE Recommended Practice J211/1 MAR95 (incorporated by reference, see § 571.5) Channel Frequency Class 600.

* * * *

§ 571.208a [Removed]

25. Section 571.208a is removed.

26. Section 571.209 is amended by removing and reserving S4.1(a), and revising S4.1(f), S4.1(k), S4.2(e), S4.3(a)(1), S5.1(b), S5.1(e), S5.1(f), S5.2(a), S5.2(b), S5.2(j)(2)(iii) introductory text, and S5.2(k) to read as follows:

§ 571.209 Standard No. 209; Seat belt assemblies.

* * * *

(f) Attachment hardware. A seat belt assembly shall include all hardware necessary for installation in a motor vehicle in accordance with SAE Recommended Practice J800c (1973) (incorporated by reference, see § 571.5). However, seat belt assemblies designed for installation in motor vehicles equipped with seat belt assembly anchorages that do not require anchorage nuts, plates, or washers, need not have such hardware, but shall have 7/16–20 UNF–2A or 1/2–13 UNC–2A attachment bolts or equivalent metric hardware. The hardware shall be designed to prevent attachment bolts and other parts from becoming disengaged from the vehicle while in service. Reinforcing plates or washers furnished for universal floor, installations shall be of steel, free from burrs and sharp edges on the peripheral edges adjacent to the vehicle, at least 1.5 mm in thickness and at least 2580 mm² in projected area. The distance between any edge of the plate and the edge of the bolt hole shall be at least 15 mm. Any corner shall be rounded to a radius of not less than 6 mm or cut so that no corner angle is less than 135° and no side is less than 6 mm in length.

* * * * *

(k) Installation instructions. A seat belt assembly, other than a seat belt assembly installed in a motor vehicle by an automobile manufacturer, shall be accompanied by an instruction sheet providing sufficient information for installing the assembly in a motor vehicle. The installation instructions shall state whether the assembly is for universal installation or for installation only in specifically stated motor vehicles, and shall include at least those items specified in SAE Recommended Practice J800c (1973) (incorporated by reference, see § 571.5). If the assembly is for use only in specifically stated motor vehicles, the assembly shall either be permanently and legibly marked or labeled with the following statement, or the instruction sheet shall include the following statement:

This seat belt assembly is for use only in [insert specific seating position(s), e.g., “front right”] in [insert specific vehicle make(s) and model(s)].

* * * * *

S4.2 * * *

(e) Resistance to light. The webbing in a seat belt assembly after exposure to the light of a carbon arc and tested by the procedure specified in S5.1(e) shall have a breaking strength not less than 60 percent of the strength before exposure to the carbon arc and shall have a color retention not less than No. 2 on the AATCC Gray Scale for Evaluating Change in Color (incorporated by reference, see § 571.5).

* * * * *

S4.3 * * *

(a) Corrosion resistance. (1) Attachment hardware of a seat belt assembly after being subjected to the conditions specified in S5.2(a) shall be free of ferrous corrosion on

significant surfaces except for permissible ferrous corrosion at peripheral edges or edges of holes on underfloor reinforcing plates and washers. Alternatively, such hardware at or near the floor shall be protected against corrosion by at least an electrodeposited coating of nickel, or copper and nickel with at least a service condition number of SC2, and other attachment hardware shall be protected by an electrodeposited coating of nickel, or copper and nickel with a service condition number of SC1, in accordance with ASTM B456–79 (incorporated by reference, see § 571.5), but such hardware shall not be racked for electroplating in locations subjected to maximum stress.

* * * *

S5.1 * *

(b) Breaking strength. Webbing from three seat belt assemblies shall be conditioned in accordance with paragraph (a) of this section and tested for breaking strength in a testing machine of capacity verified to have an error of not more than one percent in the range of the breaking strength of the webbing in accordance with ASTM E4–79 (incorporated by reference, see § 571.5). The machine shall be equipped with split drum grips illustrated in Figure 1, having a diameter between 51 and 102 mm. The rate of grip separation shall be between 51 and 102 mm per minute. The distance between the centers of the grips at the start of the test shall be between 102 and 254 mm. After placing the specimen in the grips, the webbing shall be stretched continuously at a uniform rate to failure. Each value shall be not less than the applicable breaking strength requirement in S4.2(b), but the median value shall be used for determining the retention of breaking strength in paragraphs (d), (e) and (f) of this section.

* * * *

(e) Resistance to light. Webbing at least 508 mm in length from three seat belt assemblies shall be suspended vertically on the inside of the specimen track in a Type E carbon-arc light exposure apparatus described in ASTM G23-81 (incorporated by reference, see § 571.5), except that the filter used for 100 percent polyester yarns shall be chemically strengthened soda-lime glass with a transmittance of less than 5 percent for wave lengths equal to or less than 305 nanometers and 90 percent or greater transmittance for wave lengths of 375 to 800 nanometers. The apparatus shall be operated without water spray at an air temperature of $60^{\circ} \pm 2^{\circ}$ Celsius ($^{\circ}$ C) measured at a point 25 ± 5 mm outside the specimen rack and midway in height. The temperature sensing element shall be shielded from radiation. The specimens shall be exposed to light from the carbon-arc for 100 hours and then conditioned as prescribed in paragraph (a) of this section. The colorfastness of the exposed and conditioned specimens shall be determined on the AATCC Gray Scale for Evaluating Change in Color (incorporated by reference, see § 571.5). The breaking strength of the specimens shall be determined by the procedure prescribed in paragraph (b) of this section. The median values for the breaking strengths determined on exposed and unexposed specimens shall be used to calculate the percentage of breaking strength retained.

(f) Resistance to micro-organisms. Webbing at least 508 millimeters (mm) in length from three seat belt assemblies shall first be preconditioned in accordance with appendix A(1) and (2) of AATCC Test Method 30-1981 (incorporated by reference, see § 571.5), and then subjected to Test I, "Soil Burial Test" of that test method. After soil-burial for a period of 2 weeks, the specimen shall be washed in water, dried and conditioned as prescribed in paragraph (a) of this section. The breaking strengths of the specimens shall be determined

by the procedure prescribed in paragraph (b) of this section. The median values for the breaking strengths determined on exposed and unexposed specimens shall be used to calculate the percentage of breaking strength retained.

Note: This test shall not be required on webbing made from material which is inherently resistant to micro-organisms.

S5.2 * * *

(a) Corrosion resistance. Three seat belt assemblies shall be tested in accordance with ASTM B117-73 (Reapproved 1979) (incorporated by reference, see § 571.5). Any surface coating or material not intended for permanent retention on the metal parts during service life shall be removed prior to preparation of the test specimens for testing. The period of test shall be 50 hours for all attachment hardware at or near the floor, consisting of two periods of 24 hours exposure to salt spray followed by 1 hour drying and 25 hours for all other hardware, consisting of one period of 24 hours exposure to salt spray followed by 1 hour drying. In the salt spray test chamber, the parts from the three assemblies shall be oriented differently, selecting those orientations most likely to develop corrosion on the larger areas. At the end of test, the seat belt assembly shall be washed thoroughly with water to remove the salt. After drying for at least 24 hours under standard laboratory conditions specified in S5.1(a) attachment hardware shall be examined for ferrous corrosion on significant surfaces, that is, all surfaces that can be contacted by a sphere 19 mm in diameter, and other hardware shall be examined for ferrous and nonferrous corrosion which may be transferred, either directly or by means of the webbing, to a person or his clothing during use of a seat belt assembly incorporating the hardware.

Note: When attachment and other hardware are permanently fastened, by sewing or other means, to the same piece of webbing, separate assemblies shall be used to test the two types of hardware. The test for corrosion resistance shall not be required for attachment

hardware made from corrosion-resistant steel containing at least 11.5 percent chromium or for attachment hardware protected with an electrodeposited coating of nickel, or copper and nickel, as prescribed in S4.3(a). The assembly that has been used to test the corrosion resistance of the buckle shall be used to measure adjustment force, tilt-lock adjustment, and buckle latch in paragraphs (e), (f), and (g), respectively, of this section, assembly performance in S5.3 and buckle release force in paragraph (d) of this section.

(b) Temperature resistance. Three seat belt assemblies having plastic or nonmetallic hardware or having retractors shall be subjected to the conditions prescribed in Procedure D of ASTM D756–78 (incorporated by reference, see § 571.5). The dimension and weight measurement shall be omitted. Buckles shall be unlatched and retractors shall be fully retracted during conditioning. The hardware parts after conditioning shall be used for all applicable tests in S4.3 and S4.4.

* * * * *

(j) * * *

(2) * * *

(iii) Dynamic tests: Each acceleration pulse shall be recorded using an accelerometer having a full scale range of ± 10 g and processed according to the practices set forth in SAE Recommended Practice J211-1 DEC2003 (incorporated by reference, see § 571.5). Channel Frequency Class 60. The webbing shall be positioned at 75 percent extension, and the displacement shall be measured using a displacement transducer. For tests specified in S5.2(j)(2)(iii)(A) and (B), the 0.7 g acceleration pulse shall be within the acceleration-time corridor shown in Figure 8 of this standard.

* * * * *

(k) Performance of retractor. After completion of the corrosion-resistance test described in paragraph (a) of this section, the webbing shall be fully extended and allowed to dry for at least 24 hours under standard laboratory conditions specified in S5.1(a). The

retractor shall be examined for ferrous and nonferrous corrosion which may be transferred, either directly or by means of the webbing, to a person or his clothing during use of a seat belt assembly incorporating the retractor, and for ferrous corrosion on significant surfaces if the retractor is part of the attachment hardware. The webbing shall be withdrawn manually and allowed to retract for 25 cycles. The retractor shall be mounted in an apparatus capable of extending the webbing fully, applying a force of 89 N at full extension, and allowing the webbing to retract freely and completely. The webbing shall be withdrawn from the retractor and allowed to retract repeatedly in this apparatus until 2,500 cycles are completed. The retractor and webbing shall then be subjected to the temperature resistance test prescribed in paragraph (b) of this section. The retractor shall be subjected to 2,500 additional cycles of webbing withdrawal and retraction. Then, the retractor and webbing shall be subjected to dust in a chamber similar to one illustrated in Figure 8 containing about 0.9 kg of coarse grade dust conforming to the specification given in SAE Recommended Practice J726 SEP79 (incorporated by reference, see § 571.5). The dust shall be agitated every 20 minutes for 5 seconds by compressed air, free of oil and moisture, at a gage pressure of 550 ± 55 kPa entering through an orifice 1.5 ± 0.1 mm in diameter. The webbing shall be extended to the top of the chamber and kept extended at all times except that the webbing shall be subjected to 10 cycles of complete retraction and extension within 1 to 2 minutes after each agitation of the dust. At the end of 5 hours, the assembly shall be removed from the chamber. The webbing shall be fully withdrawn from the retractor manually and allowed to retract completely for 25 cycles. An automatic-locking retractor or a nonlocking retractor attached to pelvic restraint shall be subjected to 5,000 additional cycles of webbing withdrawal and retraction. An emergency locking

retractor or a nonlocking retractor attached to upper torso restraint shall be subjected to 45,000 additional cycles of webbing withdrawal and retraction between 50 and 100 percent extension. The locking mechanism of an emergency locking retractor shall be actuated at least 10,000 times within 50 to 100 percent extension of webbing during the 50,000 cycles. At the end of test, compliance of the retractors with applicable requirements in S4.3 (h), (i), and (j) shall be determined. Three retractors shall be tested for performance.

* * * * *

27. Section 571.210 is amended by revising the introductory text of S4.3.2 to read as follows:

§ 571.210 Standard No. 210; Seat belt assembly anchorages.

* * * * *

S4.3.2 Seat belt anchorages for the upper torso portion of Type 2 seat belt assemblies. Adjust the seat to its full rearward and downward position and adjust the seat back to its most upright position. Except a small occupant seating position as defined in 49 CFR 571.222, with the seat and seat back so positioned, as specified by subsection (a) or (b) of this section, the upper end of the upper torso restraint shall be located within the acceptable range shown in Figure 1, with reference to a two-dimensional drafting template described in SAE Standard J826 MAY87 (incorporated by reference, see §571.5). The template's "H" point shall be at the design "H" point of the seat for its full rearward and full downward position, as defined in SAE Recommended Practice J1100 JUN84 (incorporated by reference, see §571.5), and the template's torso line shall be at the same angle from the vertical as the seat back.

* * * * *

28. Section 571.213 is amended by:

- a. Revising S5.4.1.2(c)(1),
- b. Revising S5.9(a);
- c. Removing and reserving S6.1.1(a)(1)(i);
- d. Revising S6.1.1(a)(2)(i)(B); and
- e. Revising S6.1.1(a)(2)(ii)(G).

The revisions read as follows:

§ 571.213 Standard No. 213; Child restraint systems.

* * * *

S5.4.1.2 * * *

(c)(1) After exposure to the light of a carbon arc and tested by the procedure specified in S5.1(e) of FMVSS 209 (§571.209), have a breaking strength of not less than 60 percent of the new webbing, and shall have a color retention not less than No. 2 on the AATCC Gray Scale for Evaluating Change in Color (incorporated by reference, see § 571.5).

* * * *

S5.9 * * *

(a) Each add-on child restraint anchorage system manufactured on or after September 1, 2002, other than a car bed, harness and belt-positioning seat, shall have components permanently attached to the system that enable the restraint to be securely fastened to the lower anchorages of the child restraint anchorage system specified in Standard No. 225 (§571.225) and depicted in Drawing Package SAS-100-1000, Standard Seat Belt Assembly with Addendum A or in Drawing Package, “NHTSA Standard Seat

Assembly; FMVSS No. 213, No. NHTSA–213–2003” (both incorporated by reference, see §571.5). The components must be attached by use of a tool, such as a screwdriver. In the case of rear-facing child restraints with detachable bases, only the base is required to have the components.

* * * * *

S6.1.1 * * *

(a) * * *

(2) * * *

(i) * * *

(B) The platform is instrumented with an accelerometer and data processing system having a frequency response of 60 Hz channel class as specified in SAE Recommended Practice J211 (1980) (incorporated by reference, see § 571.5). The accelerometer sensitive axis is parallel to the direction of test platform travel.

(ii) * * *

(G) All instrumentation and data reduction is in conformance with SAE Recommended Practice J211 (1980) (incorporated by reference, see § 571.5).

* * * * *

29. Section 571.214 is amended by revising S11.1, S12.1.1(b)(1), S12.1.2(b)(1), and S12.1.3(b)(1) to read as follows:

§ 571.214 Standard No. 214; Side impact protection.

* * * * *

S11.1 Clothing.

(a) 50th percentile male. Each test dummy representing a 50th percentile male is clothed in formfitting cotton stretch garments with short sleeves and midcalf length pants. Each foot of the test dummy is equipped with a size 11EEE shoe, which meets the configuration size, sole, and heel thickness specifications of MIL-S-13192 (incorporated by reference, see § 571.5) and weighs 0.68 ± 0.09 kilograms (1.25 ± 0.2 lb).

(b) 5th percentile female. The 49 CFR Part 572 Subpart V test dummy representing a 5th percentile female is clothed in formfitting cotton stretch garments with short sleeves and about the knee length pants. Each foot has on a size 7.5W shoe that meets the configuration and size specifications of MIL-S-21711E (incorporated by reference, see §571.5) or its equivalent.

*	*	*	*	*
	S12.1.1	*	*	*
	(b)	*	*	*

(1) H–point. The H–points of each test dummy coincide within 12.7 mm ($\frac{1}{2}$ inch) in the vertical dimension and 12.7 mm ($\frac{1}{2}$ inch) in the horizontal dimension of a point that is located 6.4 mm ($\frac{1}{4}$ inch) below the position of the H–point determined by using the equipment for the 50th percentile and procedures specified in SAE Standard J826–1980 (incorporated by reference, see § 571.5), except that Table 1 of SAE Standard J826–1980 is not applicable. The length of the lower leg and thigh segments of the H–point machine are adjusted to 414 and 401 mm (16.3 and 15.8 inches), respectively.

*	*	*	*	*
	S12.1.2	*	*	*
	(b)	*	*	*

(1) H-point. The H-points of each test dummy coincide within 12.7 mm (1/2inch) in the vertical dimension and 12.7 mm (1/2inch) in the horizontal dimension of a point that is located 6.4 mm (1/4inch) below the position of the H-point determined by using the equipment for the 50th percentile and procedures specified in SAE Standard J826–1980 (incorporated by reference, see § 571.5), except that Table 1 of SAE J826–1980 is not applicable. The length of the lower leg and thigh segments of the H-point machine are adjusted to 414 and 401 mm (16.3 and 15.8 inches), respectively.

* * * * *

S12.1.3 * * *

(b) * * *

(1) H-point. The H-points of each test dummy coincide within 12.7 mm (1/2inch) in the vertical dimension and 12.7 mm (1/2inch) in the horizontal dimension of a point that is located 6.4 mm (1/4inch) below the position of the H-point determined by using the equipment for the 50th percentile and procedures specified in SAE Standard J826–1980 (incorporated by reference, see § 571.5), except that Table 1 of SAE J826–1980 is not applicable. The length of the lower leg and thigh segments of the H-point machine are adjusted to 414 and 401 mm (16.3 and 15.8 inches), respectively.

* * * * *

30. Section 571.216a is amended by revising S3 introductory text, removing S3.2, redesignating S3.3 as S3.2, and revising S7.2(a) to read as follows:

§ 571.216a Standard No. 216a; Roof crush resistance; Upgraded standard.

* * * * *

S3 Application and selection of compliance options.

* * * *

S7.2 * *

(a) Position the three dimensional manikin specified in SAE Standard J826 JUL95 (incorporated by reference, see § 571.5), in accordance to the seating procedure specified in that document, except that the length of the lower leg and thigh segments of the H-point machine are adjusted to 414 and 401 millimeters, respectively, instead of the 50th percentile values specified in Table 1 of SAE J826 JUL95.

* * * *

31. Section 571.218 is amended by revising the second sentence of S7.1.9 to read as follows:

§ 571.218 Standard No. 218; Motorcycle helmets.

* * * *

S7.1.9 * * The acceleration data channel complies with SAE Recommended Practice J211 (1980) (incorporated by reference, see § 571.5) requirements for channel class 1,000.

* * * *

32. Section 571.221 is amended by revising S6.1.3, S6.2(a), S6.2(b), and S6.3.1 to read as follows:

§ 571.221 Standard No. 221; School bus body joint strength.

* * * *

S6.1.3 Prepare the test specimen in accordance with the preparation procedures specified in ASTM E8–89 (incorporated by reference, see § 571.5).

S6.2 Determination of minimum allowable strength. * * *

(a) If the mechanical properties of a joint component material are specified in ASTM E8–89 (incorporated by reference, see § 571.5), the lowest value of that material's thickness and tensile strength per unit of area shown in that source shall be used.

(b) If the mechanical properties of a material are not specified in ASTM E8–89 (incorporated by reference, see § 571.5), determine its tensile strength by cutting a sheet specimen from outside the joint region of the bus body in accordance with Figure 1 of ASTM E8–89, and by testing it in accordance with S6.3.

* * * * *

S6.3.1 The joint specimen is gripped on opposite sides of the joint in a tension testing machine in accordance with ASTM E8–89 (incorporated by reference, see § 571.5).

* * * * *

33. Section 571.222 is amended by revising the first sentence of S6.6.2 and the first sentence of S6.7.2 to read as follows:

§ 571.222 Standard No. 222; School bus passenger seating and crash protection.

* * * * *

S6.6.2 The head form is instrumented with an acceleration sensing device whose output is recorded in a data channel that conforms to the requirements for a 1,000 Hz channel class as specified in SAE Recommended Practice J211a (1971) (incorporated by reference, see § 571.5).

* * * * *

S6.7.2 The knee form is instrumented with an acceleration sensing device whose output is recorded in a data channel that conforms to the requirements of a 600 Hz channel

class as specified in SAE Recommended Practice J211a (1971) (incorporated by reference, see § 571.5). * * *

* * * * *

34. Section 571.225 is amended by:

- a. Revising the introductory text of S6.2.1.1;
- b. Revising S6.2.1.1(a)(1);
- c. Revising the introductory text of S6.2.2;
- d. Revising S6.2.2(a)(1);
- e. Revising the introductory text of S6.2.2.1; and
- f. Revising S6.2.2.1(a)(1).

The revisions read as follows:

§ 571.225 Standard No. 225; Child restraint anchorage systems.

* * * * *

S6.2.1.1 In the case of passenger cars and multipurpose passenger vehicles manufactured before September 1, 2004, the part of each user-ready tether anchorage that attaches to a tether hook may, at the manufacturer's option (with said option selected prior to, or at the time of, certification of the vehicle), instead of complying with S6.2.1, be located within the shaded zone shown in Figures 8 to 11 of this standard of the designated seating position for which it is installed, relative to the shoulder reference point of the three dimensional H-point machine described in section 3.1 of SAE Standard J826–1992 (incorporated by reference, see § 571.5) such that—

(a) * * *

(1) At the actual H-point of the seat, as defined in section 2.2.11.3 of SAE Recommended Practice J1100–1993 (incorporated by reference, see §571.5), at the full rearward and downward position of the seat; or

* * * * *

S6.2.2 Subject to S6.2.2.1 and S6.2.2.2, the portion of each user-ready tether anchorage that is designed to bind with a tether strap hook shall be located within the shaded zone shown in Figures 3 to 7 of this standard of the designated seating position for which it is installed, with reference to the H-point of a template described in section 3.1 of SAE Standard J826–1992 (incorporated by reference, see § 571.5), if:

(a) * * *

(1) At the unique Design H-point of the designated seating position, as defined in section 2.2.11.1 of SAE Recommended Practice J1100–1993 (incorporated by reference, see §571.5), at the full downward and full rearward position of the seat, or—

* * * * *

S6.2.2.1 In passenger cars and multipurpose passenger vehicles manufactured before September 1, 2004, the portion of each user-ready tether anchorage to which a tether strap hook attaches may be located within the shaded zone shown in Figures 8 to 11 of the designated seating position for which it is installed, with reference to the shoulder reference point of a template described in section 3.1 of SAE Standard J826–1992 (incorporated by reference, see § 571.5), if:

(a) * * *

(1) At the unique Design H-point of the designated seating position, as defined in section 2.2.11.1 of SAE Recommended Practice J1100–1993 (incorporated by reference, see §571.5), at the full downward and full rearward position of the seat, or—

* * * * *

35. Section 571.301 is amended by revising S7.1.1 to read as follows:

§ 571.301 Standard No. 301; Fuel system integrity.

* * * * *

S7.1.1 The fuel tank is filled to any level from 90 to 95 percent of capacity with Stoddard solvent, having the physical and chemical properties of type 1 solvent, Table I of ASTM D484–71 (incorporated by reference, see § 571.5).

* * * * *

36. Section 571.403 is amended by removing and reserving S5, removing S5.1 through S5.6, removing S5.6.1 through S5.6.3, revising S6.1.4, revising S6.2.3, revising S6.3.1, revising S7.2.2, and revising S7.3.2.

The revisions read as follows:

§ 571.403 Standard No. 403; Platform lift systems for motor vehicles.

* * * * *

S6.1.4 The visual warning required by S6.1.2 and S6.1.3 must be a flashing red beacon as defined in SAE Recommended Practice J578 (1995) (incorporated by reference, see § 571.5), must have a minimum intensity of 20 candela, a frequency from 1 to 2 Hz, and must be installed such that it does not require more than ± 15 degrees side-to-side head rotation as viewed by a passenger backing onto the platform from the interior of the vehicle. If a lift has only a visual alarm and the lift manufacturer specifies that the

passenger must load onto the platform in a forward direction from the vehicle floor, the visual alarm must be located such that it does not require more than ± 15 degrees side-to-side head rotation as viewed by a passenger traversing forward onto the platform.

* * * * *

S6.2.3 Maximum platform acceleration. Throughout the range of passenger operation specified in S7.9.4 through S7.9.7, both the horizontal and vertical acceleration of the platform must be less than or equal to 0.3 g after the accelerometer output is filtered with a channel frequency class (CFC) 3 filter. The filter must meet the requirements of SAE Recommended Practice J211/1 MAR95 (incorporated by reference, see § 571.5), with $F_H = 3$ Hz and $F_N = 5$ Hz. The accelerometer is located at the geometric center of the platform and is mounted directly on the platform when it is unloaded and on the geometric center of the top, horizontal surface of the standard load specified in S7.1.1 when the platform is loaded.

* * * * *

S6.3.1 Internally mounted platform lifts. On platform lifts and their components internal to the occupant compartment of the vehicle or internal to other compartments that provide protection from the elements when stowed, attachment hardware must be free of ferrous corrosion on significant surfaces except for permissible ferrous corrosion, as defined in § 571.209, at peripheral surface edges or edges of holes on under-floor reinforcing plates and washers after being subjected to the conditions specified in S7.3. Alternatively, such hardware must be made from corrosion-resistant steel containing at least 11.5 percent chromium per § 571.209, S5.2(a) or must be protected against corrosion by an electrodeposited coating of nickel, or copper and nickel with at least a service

condition number of SC2, and other attachment hardware must be protected by an electrodeposited coating of nickel, or copper and nickel with a service condition number of SC1, in accordance with ASTM B456–95 (incorporated by reference, see § 571.5), but such hardware may not be racked for electroplating in locations subjected to maximum stress. The manufacturer shall select the option by the time it certifies the lift and may not thereafter select a different option for the lift. The lift must be accompanied by all attachment hardware necessary for its installation on a vehicle.

* * * * *

S7.2.2 Use the test procedure defined in ANSI/RESNA Standard WC/Vol. 1–1998, Section 13 (incorporated by reference, see § 571.5), except for clauses 5.3, Force Gage and 6, Test Procedure, on the wet section of platform. In lieu of clauses 5.3 and 6, implement the requirements of S7.2.2.1 and S7.2.2.2.

* * * * *

S7.3.2 Attachment hardware, as specified in S6.3.1, and externally mounted platform lifts or components, as specified in S6.3.2, are tested in accordance with ASTM B117–97 (incorporated by reference, see § 571.5). Any surface coating or material not intended for permanent retention on the metal parts during service life are removed prior to testing. Except as specified in S7.3.3, the period of the test is 50 hours, consisting of two periods of 24 hours exposure to salt spray followed by one hour drying.

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